



# IASO



INDIAN ASSOCIATION OF SURGICAL ONCOLOGY  
(A section of The Association of Surgeons of India)  
**NEWS LETTER**

23

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Aug. '2002

Vol. 16 No. 1

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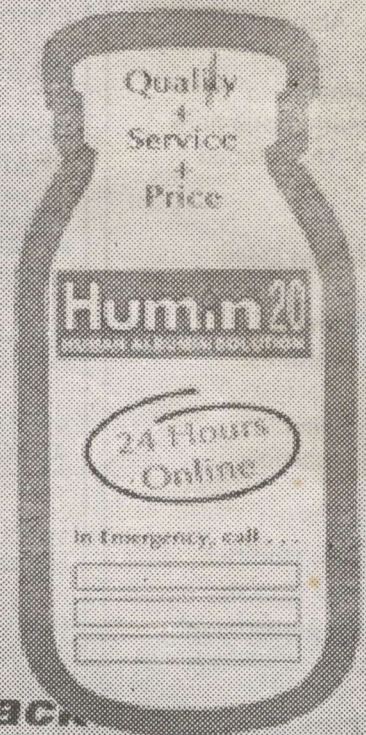
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FROM PRESIDENT'S PEN



Dear Colleagues,

I am very happy to write few words to all my colleagues of IASO regarding future plan of our activities during the year 2002.

At the outset, I thank you all for giving me this prestigious post and responsibilities to uplift our association scientifically and socially. I feel that strength of our association depends on number and unity of members. I have a desire that all the surgeons working in the field of surgical oncology must be made members of our association and all of them should actively participate in various programs. The institutes and senior onco-surgeons should take lead in this matter. Each senior member should make three new members and there should be three presentations under his guidance. I will like our association to play active role for Continuing Surgical Education Programs and practical training of young oncologists. Time has come that young oncologist should select one site and try to obtain thorough knowledge and expertise regarding management of its tumors rather than remaining general surgeon. They should be attending all conferences and workshops regarding that organ and IASO should encourage this activity. Senior oncologist should also spare some time to teach young surgeons about new and practical points regarding diagnosis and management of tumors of one site as per their vast past experience.

Various institutes should employ qualified and experienced oncologist and they should be given free hands to develop their speciality. There should be development of various paramedical specialties and infrastructure for achieving better results. Surgeons should understand the role of other branches for adjuvant treatment and their approach should be human, evidence based and as a team.

Surgical oncology is a developing subspeciality and I am sure IASO and its members will leave no stone unturned from its progress.

I plan to keep orientation course for P. G. students to develop their interest in oncology over and above NATCON and ASICON. This first conference will be at GCRI and request other centers to be active in this matter so that the number of presentation and publication by students increases.

I convey all good wishes to our members and the association to progress to its highest points.

Dr. R. I. Dave  
President, IASO  
Ahemdabad

SCINTIMAMMOGRAPHY IN DETECTION OF EARLY CA BREAST

Mammography is considered the gold standard in detection of early breast cancer and generally has a high sensitivity in the range of 85% to 90%.<sup>1</sup> But it has the following limitations.<sup>2</sup>

- 1) Lower sensitivity in women with dense fibroglandular tissue, architecturally distorted breast where the false negative rate is as high as 25 to 30%.
- 2) Low specificity and low positive predictive value(10-35%) for nonpalpable cancers.<sup>3</sup>
- 3) It may not differentiate accurately benign from malignant lesions; many mammography directed surgical biopsies are benign.
- 4) On mammogram it is some times difficult to distinguish a previous biopsy site from a new malignancy.

So to circumvent the limitations of mammography, other imaging techniques such as ultrasonography, MR imaging, PET and Scintimammography have been investigated. Here I have tried to focus on the role of Scinti-mammography and particularly Tc 99m Sestamibi (MIBI) scan in the evaluation of suspected breast abnormalities.

Since the first report of concentration of beta emitter phosphorous 32 in breast in 1946, various radiopharmaceuticals have been tried in primary CA. breast

**A. PLANAR or SPECT imaging radiopharmaceuticals:**

Radiolabeled monoclonal antibodies & peptides

- 1) Perfusion imaging agents: <sup>204</sup>Thallium, <sup>99m</sup>Tc-tetrofosmin, <sup>99m</sup>Tc-sestamibi (MIBI)
- 2) Receptor imaging: <sup>111</sup>In-DTPA -octreotide (somatostatic receptors), <sup>131</sup>I-E-17-x-iodovin estrogen (estrogen receptors), <sup>131</sup>I-16-estradiol (estrogen receptors)
- 3) Nonspecific uptake mechanisms : <sup>99m</sup>Tc-MDP, <sup>99m</sup>Tc-DTPA, <sup>99m</sup>Tc-DMSA, <sup>32</sup> phosphorous, <sup>99m</sup>Tc-sulfur colloid, <sup>67</sup>Gallium-citrate, <sup>99m</sup>Tc-pertechnetate, <sup>187</sup>Hg-clomeredin, antibodies labeled with <sup>131</sup>I, <sup>123</sup>I, <sup>111</sup>In, <sup>99m</sup>Tc, <sup>99m</sup>Tc-pentadeca-peptide-M2

**B. PET imaging radiopharmaceuticals:**

- 1) Glucose metabolism-2(<sup>18</sup>F)fluoro-2-deoxy-D-Glucose
- 2) Receptor imaging: 21-(<sup>18</sup>F) fluoro-16-ethyl-19-norprogesterone (progesterin receptor), 16B- (<sup>18</sup>F) fluoromoxestrol (estrogen receptor), 16B- (<sup>18</sup>F) fluoroestradiol (estrogen receptor), L-methyl-11C-methionine.

**<sup>99m</sup>Tc-Sestamibi scan (MIBI)**

Amongst all the above agents, <sup>99m</sup>Tc MIBI has found world wide acceptance. This is the only agent that has received FDA approval because of its proven efficacy by a large multicenter clinical trial. Accumulation of this agent in the tissue is related to mitochondrial activity or density (or both). It is due to strong electrostatic attraction between the positive charge of the lipophilic sestamibi molecule and negative charge of mitochondria. 90% of MIBI has been found inside the mitochondria which is detected by the gamma camera.<sup>4</sup> This mode of action is responsible for the increased attention towards <sup>99m</sup>Tc sestamibi scan over the rest. Another interesting observation is the relation between sestamibi and multidrug resistance-P-glycoprotein system. It has been noted that the multidrug resistant glycoprotein system uses sestamibi as a substrate and effectively transport it out of the tumor cells. This may prove an important factor when evaluating patients undergoing chemotherapy.<sup>5</sup>

Review of several studies on the use of MIBI scan in patients with breast lesions suggests that this agent has high sensitivity (84-94%) and specificity (72-94%). Sensitivity for non palpable lesions is considerably lower, ranging from 25% to 72%. Most of the investigators were not able to diagnose lesions less than 7-8mm. Waxman et.al. showed that the sensitivity of this scan for lesions larger than 12mm was high (>92%), where as lesions of 7-11mm were detected only 50% of the time.<sup>6</sup>

**Clinical applications**

Unlike mammography breast scintigraphy by <sup>99m</sup>Tc MIBI is yet to cross the barrier of clinical research to enter into widespread clinical use. It requires large patient enrollment, long term follow up to justify its utility as a complementary imaging modality to mammography.

- 1) *Fibroglandular dense breast*: About 30 to 40% of women have dense fibroglandular breast. Mammography has a sensitivity and specificity of 73% & 53% for at least one palpable mass as against 96% & 91% respectively for MIBI scan. Several studies have shown that diagnostic accuracy of scintimammography is not affected by breast density.<sup>7</sup>
- 2) *Low - suspicion Lesions*: As per American cancer society recommendations category 3 lesion on mammography (American college of radiology system) need short interval ( 6 monthly) follow up for 18 to 24 months to ensure that the lesion is stable<sup>8</sup>. This rigorous follow up schedule results in a 40% follow up loss<sup>9</sup>. Scintigraphy with its high negative predictive value( 94%) ensures the women in this group and their physicians that the breast lesion is most likely benign, if the study is negative.
- 3) *Lumpy breasts* : A number of premenopausal women with lumpy breasts are being referred for multiple FNAC with benign results. A normal mammoscintigraphy with its high negative predictive value can ensure the woman psychologically that she is most likely free from breast cancer.<sup>2</sup>
- 4) *Response to chemotherapy*: In LABC 99<sub>m</sub> Tc MIBI scan may predict the response to chemotherapy. Rapid tumor clearance of MIBI may correlate lack of tumor response to neoadjuvant therapy with drugs affected by the multidrug resistant phenotypes. Mankoff et al. found the ratio of tumor uptake before and after chemotherapy correlated with the response to adjuvant chemotherapy in women with locally advanced breast cancer.<sup>10</sup>

Besides the above clinical applications Cwikla et al. found a statistically significant positive correlation between the tumor - background ratio of MIBI uptake and size & grade of the tumor, presence of axillary node involvement. There was a negative correlation between tumor to background ratio and the presence of progesterone receptor and a borderline negative correlation between the ratio of uptake and the age of the patients and also estrogen status. Overall, patients who were younger or had progesterone or estrogen negative cancers had higher Tc 99<sub>m</sub> MIBI uptake.<sup>11</sup>

#### **PET Breast Imaging**

Though large scale, multicentric clinical trials are not available smaller studies performed by various workers suggest encouraging role of FDG-PET in diagnosis of early Ca. breast in dense breast. The overall sensitivity, specificity and accuracy have been reported to be 92%, 94% & 92% respectively. Moreover FDG-PET may also provide valuable information about axillary nodal status in N<sub>0</sub> axilla in patients who have equivocal results with sentinel node mapping and evidence of disease outside axilla.<sup>2</sup>

Mammography remains the imaging modality of choice in detection of early, nonpalpable breast cancer. Scintimammography using spect may prove to be a very useful adjunct to a nondiagnostic or difficult mammogram. But before being accepted as a true complement to mammography large scale multicentric trials are necessary to define it's exact role in diagnosis of early breast cancer.

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*Dr. Lalatendu Sarangi*  
 Editorial Secretary, IASO  
 Varanasi

## SECRETARY'S REPORT

The Oncology section of ASI convened its GBM on 29 Dec 2001 during ASICON 2001 and elected following office bearers- President - Dr RI Dave, Ahmedabad; Vice president - Dr K Gopinath, Bangalore; Vice President - Dr. Kiran Kothari, Secretary - Dr Ravi Kant, New Delhi; Editorial Secretary - Dr L Sarangi, Varanasi; Dr Sanjeev Misra, Lucknow as Co- Editorial Secretary ; Members of Executive -Somesh Chandra, Ahmedabad; Arun Chaturvedi, Lucknow; P Jagannath, Mumbai; VD Sanghvi, Mumbai; J Majumdar, Kolkata, Sharan Chaudhary, Pune, Vijay Kumar, Banaglore, Sanjay Sharma, Mumbai; S Sadashivam- Coimbatore (co-opted). The election for the Vice President has three nominations, Dr. Sandeep Kumar and Dr. Ravi Kant withdrew in favor of Dr. Kiran Kothari, in order to continue with the tradition of unanimous decisions, which avoid elections, and create a healthy environment for scientific pursuit..

**Past Presidents:** DJ Jussawala 1977, PB Desai 1979, MP Vaidya 1981, Ashok Mehta 1983, DD Patel 1984, AP Majumdar 1985, RS Rao 1986, NC Misra 1987, NN Khanna 1988, BML Kapur 1989, SK Sarkar 1990, PM Trivedi 1991, KK Pandey 1991, SK Shukla 1993, JB Venkat Rau 1994, Sambhu Pal 1995, CK Gupta 1996, HS Shukla 1997, SP Kharey 1998, P Subhas 1999, KK Maudar 2000, K Panda 2001. (By an amendment in the constitution, all the past presidents are permanent members of the executive of the IASO, and thus automatically invited to all the executive meetings.)

**Natcon:** The annual conference of the Oncology section of ASI is conducted as Natcon- a prestigious event. This year the responsibility of organizing Natcon-2002 was given to Dr S Sadasivam, HOD Surgery at Coimbatore. The GBM decided that Ooty would be the venue.

**Panchkula Natcon-2001:** The Natcon-2001 meeting held at Panchkula by Dr RK Karwasra was universally appreciated by the GBM on 29-12-2001. Natcon-2001 was conducted on 21 to 23 September 2001 at Panchkula. The Chief Minister of Haryana inaugurated the conference in an impressive function. Over 400 delegates attended the meet. The meeting was a grand success. Panel discussion / Symposiums were held on (a) Colo-rectal Cancer- Convenor-Dr K Gopinath, Bangalore; (b) Hepato-biliary Cancer- Convenor- Gen P Subhas, New Delhi; (C) Esophageal Cancer- Convenor- Dr Kiran Kothari- Ahmedabad; (d) Breast Cancer- Convenor-Dr R Badwe- Mumbai; (e) Ovarian Cancer - Convenor- Dr H Tongaonkar, Mumbai. The video presentations of Dr Sanjay Sharma, Mumbai, and Dr P Jagannath were the star highlights. A very captivating presentation on Intra-gastric Surgery by Laparoscopic technique in early stomach cancer by Dr Y Kaiwa, Tohoku University, Sendai, Japan mesmerized the audience. Another notable presentation was of Dr James Rucinsky, New York on Newer Breast Imaging technique. The NY terrorism resulted in cancellation by several other confirmed overseas speakers. Dr LJ De Souza delivered "Motibhai Oration" on Surgical Oncology. This philosophical lecture was warmly appreciated. Overall meeting was held in very impressive manner and Dr RK Karwasra won the accolades of the many. Dr Somesh Chandra conducted Onco-quiz. Onco quiz prize is sponsored by Dr K Panda in the ASICON meeting and by Dr K Gopinath in the Natcon meeting. Dr Vivek Gupta won the prize for best paper presentation on his research paper "Tumor associated lymphocytes in breast cancer-Phenotypic evaluation". The depth of paper was in incorporating the latest technology including PCR, with the help of generous and active help from ICMR. Dr SVS Dave, New Delhi faculty member at IRCH, AIIMS, came a close second in consideration for best paper presentation but was considered a winner for sponsorship to Detroit on the basis of his evaluation based on CV cum presentation. Dr PN Agarwal was awarded Baroda Traveling Fellowship. On social front, an excellent evening in Pinjore Gardens was a heavenly experience.

**Ooty Natcon 2002 Program:** The Natcon-2002 will be held in Ooty. The Organising secretary is Dr Sadashivam, Coimbatore. A great effort is being done by Dr. S Sadasivam (drsivam@rediffmail.com) to organize an excellent meeting at Ooty. In the GBM on 29.12.2001 at Patna, every one agreed to award the Motibhai Oration to Dr. D Weaver from USA. The Symposiums for Ooty 2002 were decided. The names of the convenors and their topic are- Dr. RI Dave- Conservatism in Surgery; Dr. K Gopinath- Cancer Surgery in Elderly, Dr. Arun Chaturvedi- Predictive Oncology. We are expecting more than ten foreign speakers to come to Ooty, and share their academic knowledge.

**Kolkata ASICON 2002 Program:** By tradition, the Radha Devi Oration in annual ASICON will be given by the outgoing President Dr K Panda, Cuttuck. In the GBM at Patna 29 December 2001, the Convenors and topics for Kolkata ASICON 2002 were also decided- Dr. B Fanthome- Breast Cancer, Dr. Arunabha Sengupta- Gastric Cancer, and Colo-rectal cancer in association with Colo-rectal section. Later on in meeting in New Delhi, on 28 July 2002, with Dr. T Gunasagran and Dr. Parimelazhagan the President elect; it was conveyed by the Dr. T Gunasagran that though the number of symposiums have been reduced to one, but this year we can do gastric cancer in association

with IASG and Colo-rectal in association with Colo-rectal section, and Breast cancer Symposium stands as our symposium in ASICON 2002 at Kolkata. Oncology Section will have one oration, one symposium, and one guest lecture in ASICON 2002 onwards as per new instructions from HQ Chennai. The Oration is Radha Devi-DJ Jussawala oration by outgoing president Dr. K Panda. The guest lecture has been awarded to Dr. T Ravikumar from USA for Minimal Invasive surgery in Cancer.

**Change in the format of ASICON:** The secretary of ASI HQ at Chennai has communicated that in future a section will be allotted only one guest lecture, one oration, and one symposium. However, more symposiums can be held in association with other Sections of ASI. The free paper presentation section will be common and not exclusive to Oncology sections though the papers of similar in nature and similar subjects will be clubbed as far as possible.

Free papers: There is a depressing trend that institutions, which created leaders of yesteryears, are not sending their free papers in the scientific meeting. Inverse pyramidal structure is technically unsound.

List of New members: During the year an impressive number of members were enrolled-

1. Dr. Afzal Aneez, C-25, Medical Colony, AMU, Aligarh - 20200, UP
2. Dr. Sandeep Agarwal, E-235, G.K. I-I, New Delhi - 110048.
3. Dr. Shweta Agarwal, C-154, Sarvodaya Enclave, New Delhi-110017\*
4. Dr. Shyam Bansal, F-118 / A-1, Dilshad Colony, Delhi-110095
5. Dr. Jai Bhikchandani, AG I/9C, Vikas Puri, Delhi 110018\*
6. Dr. Vimal Bhandari, DII-24, East Kidwai Nagar, New Delhi-1100017
7. Dr. Dinesh Bhatnagar, D-II- 125, West Kidwai Nagar, New Delhi - 110023.
8. Dr. Prem Kumar Bishnoi , B-101, Rishi Apartments Alaknanda, Kalkaji, New Delhi - 110019
9. Dr. Adarsh Chaudhary, DII-97, East Kidwai Nagar , New Delhi - 110023
10. Dr SM Chandramohan, 46, Medaukkam Tank Road, Kilpauk, Chennai - 600010.
11. Dr. Chintamani , DII-50 , East Kidwai Nagar, New Delhi - 110023
12. Dr. Ranendra Chaudhury DII-199, West Kidwai Nagar, New Delhi - 110023.
13. Dr. Anshuman Darbari, 23 / 36, Govind Nagar, Mandir Road Rishikesh- 249201 Uttaranchal
14. Dr. Deepak Mangesh Desai, C-20, Rajkumar Apts., 17th Road, Santacruz (w) Mumbai, 400054.
15. Dr. Sanjay M Desai, 105, Royal Park, 19/3, New Palasia, Indore-452001, MP
16. Dr. AK Dhingra, 132-C, GH-10, Sunder Apartments, Paschim Vihar, New Delhi - 110087.
17. Dr. Rakesh Dixit, F-1, Type V , Vet Hospital Complex Moti Bagh New Delhi - 110021
18. Dr. Saradindu Ghosh, R/O CD-104, Sector I Salt Lake city, Kolkata -700064, WB
19. Dr. Ashish Goel , HIG-29 ADA Colony , Ramghat Road , Aligarh UP 202001
20. Dr. Sandeep Guleria , C-291 Sarita Vihar, New Delhi 110044 ;
21. Dr. Ajay Gupta, F-4, ESI Hospital Campus, Ujjain (MP)
22. Dr. Amit Gupta, A-43, South Extension-part two, New Delhi-110049,\*
23. Dr. AK Gupta, "Surgi Care" 38, Nijatpura Ujjain, MP
24. Dr Krishna Prasad Gupta, Takiya Par, Danapur , (Behind water tank) P.O. Digha , Patna - 800012, Bihar
25. Dr NM Gupta, Professor of Surgery, PGI, Chandigarh, 160023.
26. Dr. Manu Gupta, (docmanu@rediffmail.com), C-490, Vikas Puri, New Delhi - 110018.
27. Dr Vishal Gupta, Room No. 99, PG Men's Hostel, MAMC, Delhi 110002.\*
28. Dr Vivek Gupta, Department of Surgery, MAMC, New Delhi-110002
29. Dr. Sabir Hussain 89, Nagpurwala Street Dabri Peetha Ujjain MP.-456006
30. Dr Sudhir Kumar Jain, 171, Bank Enclave, Delhi-110092; Email Sudhir\_kumarj@hotmail.com,
31. Dr. Madhabananda Kar , 522, MM Doctor's Hostel , AIIMS, South Ext. II New Delhi - 110049
32. Dr Robin Kaushik , House no. 132 , Sector 6, Panchkula 134 109 HARYANA
33. Dr Rahul Khanna, A-15, Brij Enclave Sunderpur, Varanasi-221005
34. Dr. Prashant Khullar, F-372, Sarita Vihar, Delhi-110044\*
35. Dr. Raj Kumar, Sharma Ram Nursing Home, Singhara Road Mahabir Chowk, Narnaul, Haryana.
36. Dr. Santosh Manohar Kumar, 20, HZ Sarkar Road, Bansdroni, Calcutta-70
37. Dr. Pawanindra Lal, B-90, Swasthya Vihar, Delhi - 110092
38. Dr. Tariq Mansoor, Hafeez Manzil Marris Road, Aligarh UP - 202001.
39. Dr. Vinod K Malik, DII-213, West Kidwai Nagar, New Delhi-110023
40. Dr. Rajesh Kumar Maurya, 14, ORDH, LN hospital, New Delhi Permanent address c/o Mr. Kanta Prashad Maurya, Village Padumpur, Sadar Jaunpur, UP
41. Dr Umang Mitthal, 244/2, Shivaji Road, Meerut-250001, UP
42. Dr. Rajinder Parshad F-27, Ansari Nagar New Delhi - 110029.
43. Dr. Manoj Kumar Panigrahi, Consultant Surgeon, Bansdhara Hospital, Courtmeta, Berhampur, Orissa
44. Dr. Bainubelli Babu Rao ,Type - IV/20 ,Doctor's Colony Salegramapuram , Vishakpatnam, AP
45. Dr. Sanjoy Saha, C4/7 Mahavir Vikas, HC Block, Sector-III, Salt Lake City, Kolkata-700106.
46. Dr. Chandra Bansh Sahay, 45, Kidwaipuri , Patna Bihar - 800001
47. Dr. Neeraj Saxena, D II / 85 , Kaka Nagar New Delhi -110003 ;
48. Dr. Rajeev Saxena, 40 N.E. Rly. Hospital, Mahanagar, Lucknow UP.-226006.
49. Dr. Sumeet Shah, C-1/1308, Vasant Kunj, New Delhi - 110070

50. Dr. Paras Shrimal, 50, Kheer Sagar Colony, Ujjain (MP) - 456006
51. Dr. Anirud Singh, Shastri Nursing Home, Mawana (Meerut) UP.
52. Dr. Amreek Singh, 14-F, Shaheed Bhagat Singh Nagar, Pakhowal Road Ludhiana - 141002
53. Dr Daljeet Singh, 1793, Phase-II, Karnail Singh Nagar, Pakhowal Road, Ludhiana (Punjab)
54. Dr. Ghan Shyam Singh, Mall Hospital, Buxipur, Gorakhpur
55. Dr. Harendra Pratap Singh, 26 Bal Vihar Ext. Faridi Nagar, Indira Nagar Lucknow (UP)
56. Dr. Jayadeva Sinha, West Ramsagar Tank, Gaya, Bihar
57. Dr. Amrish Mukund Shahade, 494/13, Parwail Pune - 411009.
58. Dr. GR Verma, 98- Sector- 24A, Chandigarh - 160023.
59. Dr Ajay Yadav, D-3, Nilamber Apartments, Sainik Vihar,

New Delhi-110034\*

\*Asterisk means associate members

**Members whose addresses have changed:**

1. Dr. Pramod Lal Das, Chief Medical Officer, PO Box 103, Lae MP; Papua New Guinea, Australia
2. Dr. Lt Col RK Shrivastava, Classified Specialist, Surgen and Onco-Surgery, MDTC, Command Hospital, Southern hospital, Pune-411040
3. Dr. Col. VP Singh, Classified Specialist, 290, Sector-37, NOIDA; UP-201201, Email vikrampsingh@hotmail.com
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So, it appears that positive result of our effort to have more members is now visible.

IASO Newsletter: An impressive issue of Newsletter of IASO- the IASO News was brought out by the editorial secretary Dr L Sarangi. With the regularity by which IASO news is being brought out, and with consistent above average academic standard, it is likely to be indexed very soon. Dr. L Sarangi deserves the appreciation of all for getting the RNI number. Now the effort to have DL and U number is on, allowing the newsletter to be posted without prepayment and at concessional rates of publication. Indexing should be our aim. The IASO newsletter now contains information regarding several fellowships including Baroda Traveling Fellowship. Dr. Sanjeev Misra put in a lot of effort in bringing out an issue of IASO Newsletter, distributed to members at Patna. All praise for his sincere work.

**Dr. NC Misra Oration.** Rs 1.50 lakhs have been pledged, and out of it, Rs 1.40 lakhs have been actually credited to the account of IASO by "Students of Prof NC Misra" to begin Dr. NC Misra oration in the Natcon. The first Dr. NC Misra Oration will be delivered in Natcon 2002 at Ooty.

Email addresses and Change of addresses: Kindly communicate your email address and change of addressogram to the Secretariat without fail.

**Finances:** The Organising Secretary of Udaipur Dr. Garima Mehta has very kindly sent a draft of Rs Ten thousand only (Dr. IPS Narula has promised twenty five thousand rupees in the GBM). The reply from Dr. Rajiv Sinha, Jhansi, Dr. RK Karwasra, Rohtak, and Dr. Sunil Saini, Dehradun is still awaited. Dr. K Panda has promised Rs Ten thousand. The new protocol links registrations with a certain minimum amount of money to be given to the IASO.

The money for Radha Devi is so meager as the seed money is next to nothing in today's world. The orations must be matched by significant token of appreciation by the IASO. Thus, it is agreed now that no orations will be included without seed money of at least 1.5 lakhs.

Probably, it is the time to have written contracts regarding the Natcon on the lines of ASI.

Gratitude: I am very happy to place on record the meritorious services of all the past presidents, past vice presidents, past secretaries and all the members whose cumulative effort has given strength to the IASO. The membership is now reaching 450 mark.

*Prof Ravi Kant*  
Secretary, IASO  
New Delhi

## CONTROVERSIES IN THE MANAGEMENT OF STAGE IB2 CERVICAL CANCER

Dr. Rama Joshi

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VARANASI

Optimal management of patients with primary tumors greater than 4cm. in diameter is controversial. In this particular group of patients either local, regional or distant failures are more likely than stage IB1 lesions, whatever primary modality of treatment is chosen.

The five year survival of patients with stage IB cervical carcinoma approaches 90% with radical hysterectomy or radiation therapy<sup>(1-3)</sup>. For the patients with stage IB1 squamous carcinomas, the choice of treatment is based primarily on patients preference, anesthetic and surgical risks, physicians preference and an understanding of the nature and incidence of complications with these two treatment approaches. The overall rate of major complications is similar for patients with comparable tumors treated with either surgery or radiation.

Despite 90% five year survival rate in stage IB disease, certain poor prognostic indicators including bulky lesion of more than 4cm. size, lymph node metastasis, occult parametrial invasion, deep stromal invasion and small cell histology or poorly differentiated tumors identify subset of patients where survival is reduced to 40% or less<sup>(1-11)</sup>. The tumor volume has been identified to be the most significant prognostic indicator and is taken into account in the initial treatment planning<sup>(12,13)</sup>. The patient who have tumors measuring more than 4 cm. in diameter have higher incidence of deep stromal invasion, occult parametrial invasion and greater frequency of lymph node metastasis. Finon et al<sup>(14)</sup> reported positive pelvic nodes in 15.5% of patients with stage IB1 disease and 43.8% with stage IB2 disease and positive paraaortic nodes in 1.8% and 6.3% in patients with stage IB1 and IB2 disease respectively. The patients of bulky disease with these risk factors have further increased rate of pelvic recurrence, and also the distant failures<sup>(4)</sup>. Therefore efforts have been made by various investigators to improve the survival in this particular group of patients by combining surgery, radiotherapy and chemotherapy. The approach of initiating treatment by radio or chemotherapy have the same common pitfalls of initiating therapy based on inferior data regarding the extent of disease. Surgical treatment in these patients is usually followed by post operative radiation therapy exposing the patients to the risk of both the treatments, hence many Gynecologic and Radiation Oncologists believe that patients with bulky carcinomas are better treated with radiotherapy. Primary radiation therapy has usually been recommended with high dose brachy-

therapy<sup>(15)</sup> where serious morbidity has been reported in 28% of cases in a study of 56 patients.

Surgery has been performed by the majority as initial treatment and also as an adjuvant to radiation therapy. Some of the surgeons have also advocated the use of radical hysterectomy as initial treatment in this group of bulky IB disease patients<sup>(16-18)</sup> as primary surgery allows accurate staging of the disease, precise tumor measurement and identification of poor prognostic factors, thereby allowing adjuvant therapy to be tailored according to the needs<sup>(19)</sup>. Initial surgery also allows the resection of bulky positive lymphnodes thereby improving the prognosis significantly<sup>(20, 21)</sup> and preservation of ovarian function in young patients. Surgical morbidity has not been reported different from that in state IB1 disease. Primary radical hysterectomy followed by tailored post-operative radiotherapy has been preferred by many. The only randomized, prospective study looking at radical surgery versus radiation of stage IB and IIA cervical cancer was reported by Landoni et al. (1997)<sup>(22)</sup> in 343 patients. For the patients with cervical disease more than 4cm. the rate of pelvic relapse was significantly higher among those who had radiation alone (16 of 54; 30%) compared with those who had surgery and adjuvant radiation (9 of 46; 20%) though the five year disease free survival was identical in the surgery and radiotherapy group (70% vs 72%). The severe morbidity was more in radical hysterectomy arm 28% grade II/III complication versus 12% in Radiotherapy alone arm. The NIH consensus conference held in 1996 concluded that patients with IB & IIA cervical cancer are appropriately treated either with radical hysterectomy and pelvic lymphadenectomy or radical radiotherapy with equivalent result<sup>(23, 24)</sup>. Since a combination of surgery and radiotherapy is morbid, it is essential to accurately assess the disease status in order to minimise the need for combined modality treatment. To decrease the central failure rate, several authors have advocate a completion simple hysterectomy after pelvic radiation. In barrel shaped stage IB disease cancers the pelvic and extra pelvic recurrence rate was reduced from 19% to 16% in radiation alone arm to 2% and 7% in adjuvant extrafacial hysterectomy arm respectively<sup>(25)</sup> though other investigators have noted higher morbidity with this approach of treatment<sup>(26)</sup>.

To improve the failure rates number of investigators have used chemotherapy in neoadjuvant setting prior to sur-

gery or radiotherapy or concurrently with RT. Neoadjuvant chemotherapy has shown good response rate with clinical CR rates ranging from 11%-44% with reduced pelvic node positivity. In 1993 Sardi et al<sup>(27)</sup> reported the results of randomized trial of neoadjuvant chemotherapy for patients with IB bulky cervical cancer. Quick VBP regimen was used in neoadjuvant chemotherapy arm for 3 cycles at 10 days interval in addition to Wertheim Meigs operation followed by adjuvant whole pelvic radiation for control arm. This study showed significantly better survival and disease free interval mainly because of decrease in locoregional failures from 24.3% in control group to 7.6% in neoadjuvant Chemotherapy group. In 1999 GOG randomized trial<sup>(18)</sup> was conducted for stage IB2 disease patients who were treated with external beam and intracavitary cesium and adjuvant extra facial hysterectomy 3-6 weeks later with or without weekly cisplatin at the dose of 40mg/m<sup>2</sup>

for 6 weeks. The rate of pathological CR was significantly increased in the group receiving cisplatin (5.7% vs 47%) and DFS at 24 months also significantly improved (81% vs 69%) though grade 3 and 4 haematologic and gastrointestinal toxicities were more frequent in the cisplatin arm.

The data on Concurrent chemo and radiation therapy is more promising to improve disease free survival in this group of patients. This does not delay in the start of definitive radiation and there is no prolongation of overall treatment time thus minimizing the risk of accelerated clonogenic proliferation during antineoplastic course. Although the results are encouraging but more randomized trials are advocated to establish the treatment strategy in this particular group of patients. The treatment chosen should not only consider the improvement in survival but also take into account the treatment related morbidity.

*The complementary roles of RT and surgery in management of Ca cervix (early bulky disease) has been discussed and there are some grey areas in which a collaborative approach will be necessary to determine or reassess the relative roles of these two treatment modalities.*

*Keeping in view the recent trend of rising incidence within young age group, a special group of patients have emerged who are young and have early bulky disease. Such patients have far to go in terms of life expectancy as well as quality of life and both aspects have to be integrated in the present choice of treatment. Mostly, it is likely to be decided upon an individual patient basis, based on relative complications and side effects of each modality. In this respect, the role of neo-adjuvant CT, although promising till date, has to be further investigated as to its long term benefits.*

Editor

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#### COMMISSION ON CANCER RELEASES NCDB BENCHMARK REPORTS

The Commission on Cancer is releasing its Web-based "National Cancer Data Base (NCDB) Benchmark Reports@ on March 18, 2002. This easy-to-use application is available for public use and can be employed to describe patterns of diagnosis and treatment and survival outcomes of cancer patients treated at almost 1,900 hospitals across the United States. Included are data on patient demographics (age, gender, ethnicity); tumor characteristics (AJCC stage at diagnosis, histology); treatment (multi-modal treatment, type of surgical procedure); and survival outcomes for more than 2.7 million cases and 14 major cancer sites. The data included in the reports was submitted to the NCDB by hospital cancer registries and includes cases diagnosed between 1992 and 1998. Confidentiality is a priority. Therefore, ALL patient and facility identifying information has been removed from the data accessed by the benchmark reports. "Help@ screens will be available to assist users in navigating the application, and technical assistance is available from NCDB staff. To access the benchmark reports, go to <http://www.facs.org/dept/cancer/index.html>, and click on the ANCDB Benchmark Reports@ link.

## 5TH WORLD CONGRESS OF INTERNATIONAL HEPATO-PANCREATO-BILIARY ASSOCIATION AT TOKYO - A REPORT.

Dr Raj Govind Sharma, Jaipur.

The 5th World Congress of International Hepato-Pancreato-Biliary Association was held in Tokyo, Japan, from 25th to 29th of April 2002. There was a large contingent from India and an entire session was allotted to papers from India. Main reason for such enthusiastic participation was the provision of free accommodation by the organizers in Tokyo. A lot of interaction and interest was generated on the high incidence of Gall Bladder cancer in Northern India. There were more than 1500 delegates from 42 countries. The scientific programs were rich in academic content. The focus was on medical research and clinics in hepato-pancreato-biliary field of the new century. The congress centered on symposia, panel discussions, debates and plenary session, oral free paper and video session with a particular emphasis on poster presentations. The poster session was one of the principal event of this congress, there were no other session held at the same time. The other aim of the congress was to hold plenary debates with professionals on unifying the regulations governing procedures in the area of Hepato-Pancreato-Biliary cancer. With respect to liver transplants, discussions were not only on brain dead liver transplants but also those from living donors, split transplants" adaptation between infants and adults and selection of donor livers. Not only general subjects, but also new themes were discussed, such as "HPB surgery in 21st century: virtual-robotic surgery", "Stem cell biology and bioengineering", and "Molecular and genetic biology in HPB disease: Implication of diagnosis and treatment in 21st century".

One of the impressive feature was the excellent results shown by the Japanese with extensive nodal dissections and Vascular resections. In reply to a question that - Surgery for Pancreatic malignancy is just palliative then why do extensive dissections. The reply was - To find out which subset of patients might benefit from such procedures. And in my personal opinion someone has to go to the edge to say that - "this and no more". It was a treat to watch the operative videos and listen to what lies ahead, some of which seemed like science fiction coming true. On the whole an excellent conference.

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Published by : Editor, Indian Association of Surgical Oncology, 162 A, NE Railway Officers Colony, Lahartara, Varanasi-221 002

Printed at : A. K. Prakashan, 6-Neel Cottage Colony, Maldahia, Varanasi-221 002

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## NEO-ADJUVANT THERAPY IN TREATMENT OF CARCINOMA ESOPHAGUS

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Lately there has been a lot of interest in neo-adjuvant therapy (NAT) in treatment of Ca esophagus. This brief review article objectively assesses the current information available on this topic.

### **The perceived need for neo-adjuvant therapy (NAT) in treatment of Ca esophagus :**

Surgery has been considered the "gold standard" for the treatment of carcinoma esophagus, as it provides excellent palliation with relatively low morbidity and mortality rates, but cure remains elusive. Five-year survival of surgically treated patients with operable esophageal carcinoma does not exceed 20%. The results with curative radiotherapy are even worse, with  $< \text{ or } = 10\%$  alive after 5 years. New treatment strategies are needed. The results of single modality treatment for esophageal cancer have been poor because of a high rate of local recurrence and distant metastasis. This is probably caused by the prevalence of advanced esophageal cancer at the time of diagnosis; only 3% of patients have Stage I disease and most of them (80%) are Stage III or IV when they become symptomatic. Most patients with localized disease will develop metastases despite potentially curative local therapy<sup>1</sup>. The failure of local control and poor survival of patients with esophageal cancer following esophagectomy has led to intense investigation into combined modality therapy. Pre- or postoperative radiotherapy and perioperative chemotherapy alone do not improve survival, benefit appears to be greater when chemotherapy is given with radiotherapy, perhaps because of a radiosensitizing effect<sup>2</sup>. Neoadjuvant (preoperative) combined chemoradiation (neo-adjuvant therapy = NAT) have been added to the treatment of this disease to enhance local control, increase resectability rate, and improve disease-free survival. It aims at reduction of local and micro-metastatic tumour deposits and downstaging the primary tumour by enhanced delivery of cytotoxic agents via the intact microvasculature<sup>3</sup>.

### **NAT Protocols**

Most treatment protocols include radiation with 30-50 Gy and a simultaneous therapy with 2-3 cycles of Cis-Platin/5-Fluorouracil. Protocol may have administration of cisplatin 26 mg/ml/day (days 1-5 and 26-30), 5-Fluorouracil (5-FU) 300 mg/ml/day (days 1-30), concurrent radiotherapy (4400 Gy) followed by oesophagectomy or two cycles of chemotherapy (cisplatin and 5-fluorouracil), one at the beginning and the other at the

end of the radiation treatment. Another protocol consists of two courses of 5-fluorouracil and cisplatin on Days 1-5 and Days 21-25. Radiotherapy is commenced on Day 21 and consists of 36 grays delivered in 12 fractions over 17 days. Surgery is performed on Day 60<sup>4</sup>. Japanese surgeons have used hyperthermia in addition to chemo-radiation<sup>5</sup>. Newer drugs like Paclitaxel have shown encouraging result.

### **Results of clinical trials with NAT in treatment of Ca esophagus :**

Many non-randomized trials showed a better survival of the patients treated NAT than those with surgery alone,<sup>16-141</sup> but random assignment studies failed to demonstrate a significant difference in outcome.<sup>15-181</sup> The neoadjuvant treatment showed promising results, especially in the group of patients who have a complete histopathologic response to preoperative treatment (i.e., no viable tumor in the resected specimen), which constitute about 25% of all the patients.<sup>4, 19-221</sup> Most authors believe that local control of esophageal cancer is excellent following NAT and NAT increases the resectability rate, the rate of complete tumor resection and facilitates laryngeal preservation.<sup>4, 231</sup> A multicenter, randomized trial has shown that NAT did not improve overall survival, but it did result in prolonged disease-free survival and survival free of local disease.<sup>241</sup> NAT can also downstage esophageal carcinoma for T and N status.<sup>131</sup> NAT does not seem to have had any benefit in cases with node involvement.<sup>16, 25-271</sup> Factors significantly correlating with disease free survival are tumor size, hematological toxicity grade 3 or 4, pathologic lymph node status, tumor regression grade, and esophageal wall involvement (circumferential extension  $> 2/3$ ).<sup>26, 281</sup>

It is clear that only patients who have a complete histopathologic response to NAT benefit by this treatment. Unfortunately, those patients without a response do not benefit from the preoperative chemotherapy but still may suffer the associated toxicity. These patients may have a much higher risk of postoperative complications and should be spared of NAT as it consumes 20% of their survival time.<sup>161</sup> Therefore the identification of these patients is the key to selecting which patients should be submitted to preoperative radio- and chemotherapy.

### **Is it possible to assess and predict the response to NAT?**

Excellent performance status, a fungating tumor, weight

loss < 8%, and well differentiated squamous cell pathological features are associated with an increased chance of complete pathological response following preoperative chemotherapy.<sup>[20, 26, 29]</sup> Measuring the response of esophageal cancer to combined chemotherapy and radiotherapy is difficult as upper gastro-intestinal endoscopy and endoscopic ultrasonography find it difficult to distinguish tumor involvement of the esophageal wall and lymph nodes from the postinflammatory changes that characterize effective neoadjuvant treatment. The percentage reduction in tumor area estimated by means of endosonography reflects the histologic effectiveness of neoadjuvant therapy in patients with advanced esophageal carcinoma and has been tried to predict the prognosis of the disease. But results using endoscopic ultrasonography have been contradictory.<sup>[30-34]</sup> The investigation of biologic molecular markers to predict chemoradiation sensitivity and prognosis has received wide attention, with p53 protein, Ki-67 antigen and MIB-1 proliferation index showing promise.<sup>[35-39]</sup>

It has been suggested that oesophagectomy might be unnecessary for patients who achieve a complete response with neoadjuvant chemoradiotherapy for an oesophageal cancer. Selective oesophagectomy can be performed in patients with post-treatment positive biopsy or <75% regression on CT scan, or with localized recurrence.<sup>[40]</sup> But the problem of accurately assessing complete response with neoadjuvant chemoradiotherapy remains as no staging tool can predict a pathologic complete response after induction therapy accurately, suggesting a continued need for surgical resection.

#### What about the side effects of NAT?

An increase of perioperative morbidity and mortality has to be expected through this treatment, most authors have found so.<sup>[13, 18, 41-44]</sup> Induction toxicity includes nausea, neutropenia, thrombocytopenia, and reversible nephrotoxicity. Neoadjuvant chemoradiotherapy can induce latent postoperative myelosuppression and may lead to intractable infection. Cellular immunity, especially cytotoxicity may be greatly impaired by the surgical stress of oesophagectomy and an added effect of chemotherapy.<sup>[45]</sup> Apoptosis in tumor-infiltrating lymphocytes can be induced by chemotherapy in some patients without increasing apoptosis in tumor cells resulting in a poor prognosis.<sup>[46]</sup> On the other hand evidence for the safety of induction therapy followed by oesophagectomy has been presented by some authors who showed that such aggressive therapy does not lead to worse surgical outcomes, vis-a-vis morbidity and mortality.<sup>[8, 20, 25, 47, 48]</sup> Opinion on postoperative pulmonary complications after NAT is equivocal with some authors suggesting a significant increase<sup>[49]</sup> while others concluding that neoadjuvant therapy does not induce radiation pneumonitis or changes in lung function that could be of

concern at the following operation.<sup>[50]</sup>

#### Summary

Several randomized studies have failed to show significant improvement after NAT compared with surgical resection alone, although downstaging of disease and benefits on subgroups of patients with complete response could be demonstrated. The clinical response evaluation is difficult and pathological response is best proved by classification of the histomorphologic regression of the tumor, which can be best done on a esophagectomy specimen. In spite of these limitations a recent survey conducted among a group of European surgeons found a consensus that protocols of induction therapy should be routinely used in patients with locally advanced disease, especially in supracarinal tumors.<sup>[51]</sup> There is a prevailing concept among western surgeons that patients with carcinoma of the esophagus have systemic disease at the time of presentation.<sup>[3, 52]</sup> Therefore NAT continues to be widely used but even for responders the ideal regimen remains to be determined. Newer therapeutic agents are being tried to minimize the toxicity of NAT. The identification of factors that would allow prediction of response to neoadjuvant therapy and improvement of diagnostic methods for evaluation of the effect is the focus of ongoing studies including molecular biologic and immuno-histochemic techniques. Until randomized trials have demonstrated superiority, surgery alone or chemoradiation without surgery remain the standard of care, for patients with esophageal cancer.

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# ONCOSURGICAL EMERGENCY: AN EXPERIENCE AT ACHARYA HARIHAR REGIONAL CANCER CENTRE, CUTTACK

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## ABSTRACT

A total of 149 cancer patients needing emergency surgical intervention were treated in the surgical oncology department during period of 4 years and 3 months from January 1998 to March 2002 at Acharya Harihar Regional Cancer Centre, Cuttack. Most commonly encountered was acute dyspnoea following massive pleural effusion due to either primary or secondary lung/pleural malignancy. Next common events were intestinal obstruction, GI hemorrhage, haematuria, acute strider, obstructive uropathy, hollow viscus perforation in that order. The observations with regard to their incidence, etiology etc were compared to those found in literature, which was briefly reviewed.

### Key words

Emergency, Oncosurgical emergency, Dyspnoea, Obstruction, Haemorrhage, Haematuria, Strider, Obstructive uropathy, Perforation.

## INTRODUCTION

A Cancer patient is potentially susceptible to a variety of emergencies, which are amenable to corresponding surgical procedures. Some arise as a direct consequence of the tumor itself or its metastatic sequelae, some appear as the aftermath of treatment, and the toxicity and a third group arise completely independent of malignancy. The number of such problems are seen no less in the day-to-day practice by the team of oncologist. Hence the author here felt necessary to briefly review the emergency conditions treated at Acharya Harihar Regional Cancer Centre Cuttack from January 1998 to March 2002 with regard to their incidence and management.

## MATERIALS AND METHODS

149 patients with symptoms and signs needing urgent surgical intervention seen at Acharya Harihar Regional Cancer Centre, Cuttack during the period January 1998 to March 2002 were included in the study. All the patients had histologically proven malignancy. The emergency presentations were initial presentation in some cases and in others, there were history of treatment of the disease by chemotherapy, radiation or both. Analysis was done with respect to the types of presentations, their subtypes, the morbidity, mortality, and different types of treatment.

## OBSERVATIONS

The following observations were made with regards to various characteristics:

**Table-1. The types of presentations**

1. Massive pleural effusion	47 (32%)
2. Intestinal obstruction	30 (20%)
3. GI haemorrhage	22(15%)
4. Haematuria	18 (12%)
5. Acute strider	12(08%)

6. Hollow viscous perforation	10(07%)
7. Obstructive uropathy.	10(07%)
<b>Total</b>	<b>149 (100%)</b>

Please note that massive pleural effusion was the most commonly occurring condition needing emergency intervention.(32%) and hollow viscous perforation as well as the obstructive uropathy were the least commonly occurring event (07%).

**Table-2a. Intestinal obstruction-Etiology**

1. Organic:	Ovarian carcinoma	13
	Colorectal carcinoma	07
	Gastric carcinoma	01
	Carcinoma cervix	04
	Lymphoma	01
	<b>Total</b>	<b>26 (87%)</b>
2. Radiation enteritis		02 (07%)
3. Pseudo obstruction		02 (07%)
	<b>Total</b>	<b>30 (100%)</b>

It was observed from the above table that the intestinal obstruction was mostly due to adhesion of the loops of intestine to an organic malignant disease prevailing or recurred after completion of surgery/ chemo/ radiation or in combination whereas radiation enteritis and pseudo-obstruction were least occurring condition attributable for such obstruction.

**Table 2b. Intestinal obstruction-Strangulation/ No Strangulation.**

1. Strangulation	01 (03%)
2. No Strangulation	29 (97%)
<b>Total</b>	<b>30 (100%)</b>

It was noticed that strangulation was very much rare (03%).

**Table 2c. Intestinal obstruction-Complications.**

1. Operative mortality	04 (13%)
2. Morbidity (Faecal fistula)	09 (30%)
3. Recurrence of obstruction	04 (13%)
4. No complication	13 (44%)
<b>Total</b>	<b>30 (100%)</b>

The above table denotes that the total complication rates were as high as 56% as opposed to relief of such obstruction without any complication (44%) in our data.

**Table- 3. GI hemorrhage-Management.**

1. Endoscopically bleeding controlled	13 (60%)
2. Conservative management	05 (20%)
3. Surgery	04 (20%)
<b>Total</b>	<b>22 (100%)</b>

Most of the GI bleeding (80%) were controlled by conservative management and minimally invasive procedure. Surgery was contemplated only in 04 cases (20%).

**Table 4a. Haematuria-Etiology**

1. Urinary tract bleeding	12 (67%)
2. Secondary to rectal/ gynaecological malignancy	03 (17%)
3. Haemorrhagic cystitis after CT/RT	03 (17%)
<b>Total</b>	<b>18 (100%)</b>

**Table 4b. Obstructive uropathy-Etiology**

1. Retroperitoneal tumor/Lymph node	07 (70%)
2. Retroperitoneal fibrosis (CT/Pelvic RT)	03 (30%)
<b>Total</b>	<b>10 (100%)</b>

**Table 4c. Obstructive uropathy-Management**

1. Nephrostomy	01 (10%)
2. Stenting	05 (50%)
3. Lost to follow up	04 (40%)
<b>Total</b>	<b>10 (100%)</b>

From the last two tables it were observed that the most common cause of ureteric obstruction was pressure of the ureter from outside by either tumor or lymphnode and were mostly treated by minimally invasive procedures like stent or guided nephrostomy.

**Table- 5. Hollow viscus perforation - Sites**

1. primary colonic tumor	02 (20%)
2. primary stomach tumor	01 (10%)
3. lymphoma intestine	01 (10%)
4. metastatic gut	01 (10%)
5. Caecal perforation with distal	03 (30%)

obstructing colonic carcinoma	
6. Failure of anastomosis in surgery for carcinoma colorectum (with or without Radiation )	02 (20%)
<b>Total</b>	<b>10 (100%)</b>

Maximum perforations were seen in caecal area amongst those with distal obstructing colorectal carcinoma.

## DISCUSSION

Now it will be worthwhile to discuss individually regarding diagnostic workup, decision to operate, their various etiopathology, incidence, various methods of treatment, their results and survival and review of world literature.

## DIAGNOSIS AND WORKUP

Pain, tenderness, fever, chills, nausea, vomiting, diarrhoea, constipation, distention and blood occult or frank coming from mouth or anus are often important problems that invite surgical consultation. Now the responsibility of the surgeon comes through a thorough clinical history, including the patients past clinical and pathological records. Information about prior operative notes, histopathological report, the details of recent and past treatment like how much the radiation the patient has received, and to what portals, which chemotherapy agent the patient has received within last 6 weeks etc.

The patients' recent laboratory data with information of bone marrow reserve and response are assessed through complete blood count, serum electrolyte, amylase, blood urea nitrogen, creatinine, and liver function tests including prothrombine time. The serum tumor markers levels are assessed. Recent blood and stool culture are reviewed.

A thorough physical examination including rectal and vaginal assessment is mandatory in all cases. Effort should be made eliciting evidence of peritoneal irritation and the status of bowel sound. Careful observation and repeated examination provide important information regarding improvement or deterioration of the clinical status in making decision about whether or not to proceed for operation.

An X-Ray chest postero-anterior and lateral view, along with plain roentgenogram of the abdomen in supine and erect position is taken and the old pictures of such plain X Rays along with CT or MR scans, plain or contrast, are examined. It gives the surgeon an good opportunity to compare the findings.

The clinical story of cancer patients is so complex that sometimes it creates confusion and uncertainty in diagnosis. Steroids occasionally mask the usual response to peritoneal soilage. The fever, chills and rigors associated with severe chemotherapy induced neutropenia may mimic the sepsis picture of bowel perforation or peritoneal collection of pus. Few of the paraneoplastic syndromes and some chemotherapy agents can produce a consid-

erable degree of gut neuropathy that simulates mechanical intestinal obstruction. Such type of knowledge on the part of the surgeon invites some additional diagnostic tests to arrive at a concrete conclusion.

#### OPERATE/NOT TO OPERATE?

Most of the patients receiving chemotherapy are immunologically compromised. In a survey by Turnbull and Starnes at Memorial Sloan Kettering Cancer Centre, one third (66 of 200) of the emergency procedures were done to manage the cancer or a complication of chemotherapy<sup>1</sup>. Forty-four percent (88 of 200) were performed to manage a complication of prior surgery and 21% (42 of 200) of the laparotomy was necessitated by nonneoplastic or antineoplastic treatment related diagnoses. In fact, 13 of those 42 procedures were done in patients without any evidence of cancer. Laparotomy failed to reveal any urgent problem in the remaining 2% (4 of 200).

As cancer patients can ill afford a procedure that creates more problems than it solves, the surgeon before proceeding to operation must be sure with regard to several important points. What is the exact nature of the problem? What surgically can be done to provide remedy? Is there any less invasive procedure available for such patient alternative to surgery?

#### HOLLOW VISCUS PERFORATION

Perforation of an hollow organ and its resultant peritonitis in a patient of known cancer either with residual disease or controlled, produces a variety of symptoms and signs like constant and severe abdominal pain, tenderness, guarding and rigidity followed by profound ileus leading to distention and quiet to absent bowel sound. The resultant bacteremia causes fever and tachycardia. The third space fluid loss results in haemodynamic disturbance leading to hypotension and oliguria. The plain skiagram abdomen in erect position demonstrates free intra-peritoneal gas under diaphragm<sup>2</sup>. This strongly favors hollow viscus perforation and warrants urgent surgical interference.

Every effort should be made preoperatively to determine the site of perforation. If the clinical history favours a gastroduodenal perforation (steroids, NSAIDs, prior ulcer disease, haematemesis or occult blood in stool) it is wise to proceed with a gastrografen study by mouth or through the ryles tube which has already been put due to the emergent condition. On the other hand, if the findings favour a colonic problem, (prior diverticular disease) it is better to start with a gastrografen enema. The perforation may not be into free peritoneal cavity but into another hollow viscus, it produces different types of fistulae. When leak occurs into the external surface, an enterocutaneous fistula occurs.

Clinically acute pancreatitis can mimic acute abdomen with bowel gangrene pathologies. It is informative if

preoperatively serum amylase and lipase are done. Many a times the perforation occurs through a portion of bowel wall involved by tumor either already clinically known or undiagnosed. In case of lymphoma of colon, small intestine or stomach, the perforation may occur spontaneously or because of antineoplastic treatment<sup>3</sup>. Even perforation might occur in a hollow viscus involved by secondary metastases from primary in non-gut organs like lung, kidney, melanoma, breast<sup>4</sup>. The site of perforation is usually at the tumor, although cases are seen perforating at sites well away from the tumor due to close loop obstruction mechanism leading to distention and perforation. There are many other etiological factors, which contribute towards causation of the perforation. These are summarized in table 6.

**Table 6. Etiological factors in gut perforation<sup>5</sup>.**

Tumor at site of perforation	Perforation through noninvolved gut wall
Primary colonic tumor	Caecal perforation with distal obstructing colon cancer.
Primary stomach tumor	Acid peptic, diverticular disease(+steroids)
Lymphoma	Drug induced, Viral, Bacterial
Leukemia	Gastric ulcer.
Primary small bowel tumor	Failure of anastomosis,(+irradiation)
Metastatic cancer from lung, breast, melanoma, kidney	

The problem of perforation and the resultant sequelae can be dreadful and associated with mortality rate as high as 50 %<sup>6</sup>. Hence, the surgeon while treating must remember that the surgical procedure does not have to solve all the patients' problem at once. Instead, it should only eradicate the principal and the most life-threatening problem. He should eliminate the source of continued septic focus by resecting the site of perforation Exteriorisation/ resection particularly for colonic perforation is preferred. Suture plication is the method for the benign lesions. The surgeon should be conservative in immediately restoring bowel continuity. Stomas are recommended. Anastomotic leaks should be avoided. During laparotomy the burden of contamination can be reduced if before closure liberal irrigation done with normal saline and antibiotic solutions. Drains are placed in such a manner that enteric leaks can be comfortably converted into controlled fistulas. Adequate haemostasis must be obtained before closure of the abdomen. Different tubes may be used for decompression of expectant distention at the anastomotic site, which can be later used for enteral feeding. Tension sutures are always used while closing the wound to prevent postoperative wound dehiscence.

#### INTESTINAL OBSTRUCTION

When a patient of cancer suffers from symptoms of different variety starting from unable to eat, drink, with or

without vomiting, not able to pass flatus or faeces, can not find a comfortable position to lie with or without respiratory difficulty, usually associated with crampy abdominal pain, probably he/ she needs an urgent surgical consultation. The surgeon needs to examine him/her thoroughly to get information as to the following questions-Is it a dynamic or adynamic obstruction? At what and how many sites is it located? To what functional degree is the lumen compromised? Is there any impending/obvious gangrene of the bowel? What are the causes of such blockage? What is the likelihood of spontaneous resolution?

A plain X-Ray of abdomen in supine and erect position including the diaphragm will exclude gas under diaphragm and will delineate air fluid levels in distended loops of small intestine if it is an organic obstruction rather than metabolic without any perforation. Gas seen in rectum and rectosigmoid junction late in the evolution in the pathology, will ensure it to be a partial obstruction. A lot many metabolic problems like hypokalaemia, hypomagnesaemia, and hypocalcaemia, and recent intake of narcotics/ vinca alkaloids can severely impair neuromuscular function and mimic intestinal obstruction like features. A normal serum amylase or lipase rules out any possibility of acute pancreatitis and associated paralytic ileus.

An introduction of nasogastric tube usually provides some degree of decompression, buys time and permits repletion of third space fluid loss and a decision about additional diagnostic studies to be done. Serial plain X-Rays can tell about whether the condition is getting better or worse.

Dealing with an unprepared colon at surgery is a major hazard. Obstipated faeces themselves can compound the mechanical obstructive problem and potentially threaten the integrity of a proximal anastomosis and significantly provide peritoneal contamination if the colon is inadvertently entered. Such a situation should be managed with nothing more than a colostomy. The history of previous malignancy or its recurrence anywhere in the body invariably increases the probability that the obstructive pathology is due to a tumor. The proportion with malignant causes of the obstruction is between 59% and 97%; (mean, 78%)<sup>(7-9)</sup> Cancer patients can have benign causes for their intestinal obstruction; between 3% to 38% (mean 23%)<sup>(7-10)</sup> In few cases radiation enteritis is a cause of such emergency situation.<sup>7,11</sup>

Most common primary tumors which were found culprit as a predisposing factor for obstruction are ovarian, colorectal, gastric, uterine and bladder Lymphoma and secondaries, whose primary are in breast, melanoma etc. Fortunately in most series of bowel obstruction, strangulation constitutes only 0-5% of cancer patients.<sup>(8,9,12,13)</sup> Between 12-28% of cancer patients spontaneously re-

solved their obstructive problems<sup>(7,8,10,12)</sup>, but can again develop a recurrent bout of obstruction necessitating surgery. In all cases conservative management should be done for about 3-10 days. If surgery becomes necessary, the technical options include adhesiolysis, bypass resection or colostomy. Operative mortality is very high in such patients 9-35% (average 19%) as is the corresponding morbidity rate 15 - 49%<sup>(7-14)</sup>. Average 15% of the obstructions fail to resolve or recur soon after surgery. Unless a benign cause for these cancers is found the survival of these patients are found to be in the order of several months<sup>(8,10,14,15)</sup>. Pseudo obstruction involving small or large intestine is a poorly understood entity that has been reported in the literature recently with increasing frequency<sup>16</sup> but is occasionally seen in cancer patients.

### GI HEMORRHAGE

Massive hemorrhage in a cancer patient invites the following critical questions. What is the specific site of hemorrhage? Is there any coagulopathic problem? Is it so profuse to invite intervention?

Point source hemorrhage is far easier to control than diffuse bleeding. The coagulopathic problems are recognizable and correction of those can result in cessation of hemorrhage. In hypotension, volume support can correct the condition. Endoscopically performed injection, electrocoagulation or photocoagulation of bleeding gastroduodenal lesions in expert hands provides definite control of hemorrhage in about 75% of cases<sup>(17-18)</sup>. Continuing haemorrhage at a rate of 1 ml per minute in the small or large intestine needs to be evaluated by angiography. The cancer patients deserve the time tested surgical approaches to control free intraperitoneal bleeding from spleen, liver, aorta or other sources.

While evaluating such patients, few strategic principles should be adopted in order to proceed towards a proper management. First, determine the site, source and cause of the hemorrhage. Consider a less invasive therapeutic procedure. Most of the cases the site of bleeding is the gastro-duodenum and the proximal jejunum and it is ideal to pass a large bore nasogastric tube to aspirate the clot and identify the site of bleeding source, electrocoagulate, inject or photocoagulate the point source if it is either a peptic ulcer lesion/ Mallory Weiss tear. A biopsy is always taken if it is a malignant or suspected malignant lesion. In case of melena or bright red blood around rectum, it is wise to perform a sigmoidoscopy to rule out source in distal 25 cm of colon if no blood is found in aspirate in nasogastric tube. If lesion is found in small or large bowel an occlusional therapy may be considered. Colonoscopy may be considered if the rate of bleeding allows cleansing of the colon for adequate inspection. CT scan of abdomen and pelvis allows determination of intra/ retroperitoneal haemorrhage. The

next most important procedure to be adopted is to determine and correct all coagulopathic problems by performing platelet count, prothrombin time, partial thromboplastin time, bleeding time and other coagulation factor assessment. Consider platelet transfusion, Vit K, fresh frozen plasma or factor concentrates as appropriate. Sometimes H2 receptor blockers or sucralfate are helpful. When all these interventional procedures fail, the surgical intervention comes into picture in the form of suture ligation of bleeding sites or intestinal resections.

### **BLADDER HEMORRHAGE**

It is a well-known fact that it becomes a life-threatening emergency once the urinary tract starts bleeding producing massive haematuria. The bleeding may be from the kidney, urethelial mucosa, prostate, or secondary to direct invasion of colonic or gynaecologic cancers or may be due to pelvic sarcomas invading into urinary tract. Occasionally benign conditions like renal angiomyolipoma, arteriovenous malformations or hemorrhagic cystitis secondary to chemo/radiation therapy or viral infections in an immunocompromised host can also cause life-threatening haemorrhage<sup>19</sup>. May be a disorder in haemostasis is an etiological factor. More than one such factor may be responsible for the bleeding in many cases. In the early experience with cyclophosphamide used as an antineoplastic agent or used in bone marrow transplant the incidence of haemorrhagic cystitis was as high as 40% to 68%<sup>20</sup>. There are no clinical predictors to indicate which patient will experience this type of complication. Acrolein is the urinary metabolite of cyclophosphamide that has been implicated as the urotoxic substance, but the exact mechanism by which it damages the urothelium is not known.<sup>21</sup> Overhydration to dilute urinary acrolein is the key to prevent such complication associated with cyclophosphamide.<sup>22</sup> Mesna is an effective uroprotector that does not interfere with the chemotherapeutic efficacy of cyclophosphamide<sup>23</sup>. Serious bladder haemorrhage is an unusual acute event after pelvic irradiation for gynecologic, genito-urinary and rectal cancers.<sup>19</sup> There has been no specific measure to prevent irradiation-induced cystitis and haemorrhage, however the use of topical analgesics alleviates most of the symptoms of dysuria, and frequency. Currently under clinical investigation for treatment of radiation induced haemorrhagic cystitis are sodium pentosan polysulfate, hyperbaric oxygen and conjugated estrogen each of which attempts to stabilize the damaged urothelium and promote healing.<sup>24</sup>

Late onsets of haemorrhagic cystitis in bone marrow transplant patients are attributable to a possible viral infection. Rice and colleagues identified the BK type of human polyomavirus in the urine of 5/6 bonemarrow recipients 2 of whom had haemorrhagic cystitis<sup>25</sup>. The BK

virus is activated during the period of immuno suppression and is recoverable in the urine. BK virus activation remains a major factor in the evolution of hemorrhagic cystitis in this group of cancer patients. Slow and minimal bleeding without any clot retention does not pose any problem in managing such condition. But when the hemorrhage is massive and intractable, the patient usually develops clot retention and needs urgent intervention. The patient is shifted to the operation theatre and gentle bladder wash is given under general anaesthesia and putting a large bore multi-hole urethral catheter. Often the hemorrhage gets slower down once all the clots are removed and the returning fluid becomes pinkish when the continuous bladder irrigation is maintained through a three way catheter. If clots are found to be large, the urologist may break the clots mechanically under vision through the urethroscope and fulgurate the bleeding vessels if any. Diffuse bleeding may require intravesical instillation of formalin. Complication of formalin appears to be less in case of concentration less than 4 percent<sup>26</sup>. There are many other methods of controlling the bleeding like intravesical alum, silver nitrate, hydrostatic distention, iced saline lavage etc. Prostaglandin E2 and F2 can also be instilled intravesically as a day care procedure without any anaesthesia and has been reported to be effective in controlling the hemorrhagic cystitis.<sup>27</sup>

### **OBSTRUCTIVE UROPATHY**

One or both the ureter in a cancer patient may be obstructed due to either direct involvement, compression by a retroperitoneal tumor, encasement by a retroperitoneal or pelvic lymph node or rarely by direct metastases to the ureter. It may be also secondary to retroperitoneal fibrosis following surgery, chemotherapy or pelvic radiation.<sup>28</sup>

Acute ureteral obstruction usually manifests as flank pain and spasmodic colicky type of pain. On the contrary chronic ureteral obstruction is usually silent but to be incidentally discovered as hydronephrosis with renal cortical atrophy on abdominal imaging study. Most of the patients present with oliguria and symptoms of uraemia. Increased renal pelvic pressure may cause rupture of renal calyceal fornix leading to a condition of perinephric urinoma. Infected it may cause urosepsis with symptoms of fever, chill, rigor etc. requiring emergency urological decompression. Decompression with the use of ureteral stents in many patients improves the renal function thereby facilitating use of chemotherapeutic agents for overall palliation and alleviation of distressing symptoms. The previous method of palliation by open nephrostomy is not without a major complication rate of up to 45 percent<sup>29</sup>. In the last 10 years, techniques have evolved using percutaneous and endoscopic techniques to decompress the obstructed

urinary tract. A mean survival up to 10 month & can be obtained after diversion or stenting in patients with advanced malignancy and ureteral obstruction.

#### EMERGENCY INTERCOSTAL DRAINAGE

The occurrence of a new pleural effusion in a cancer patient merits complete investigation by the oncologist. The degree of symptoms attending such effusions is variable. Sometimes they present with severe degree of dyspnoea requiring emergency thoracocentesis or intercostal drainage if the fluid is sanguinous. Symptomatic relief of fluid removal is usually short-lived without other adjuvant measures. Many patients require sclerotherapy after space obliteration by large bore thoracostomy tube. Initial removal of effusion allows the visceral pleura to come into contact with chest wall parietal pleura and thereby obliterates by continuous underwater seal suction drainage, the space occupied by the effusion. A sclerosing agent i.e. antibiotic, antineoplastic, or radioactive can then be delivered intrapleurally to produce mesothelial fibrosis and obliterate small pleural blood vessels rather than producing specific antineoplastic effect<sup>20</sup>.

#### INFERENCE

In this Regional Cancer Centre, Cuttack over a period of more than 4 years, Dyspnoea caused by massive pleural effusion was the most commonly occurring emergency condition needing urgent intercostals tube drainage with connection to underwater seal system. This was probably because of incidence of primary and metastatic lung diseases were high with either high stage presentation or response to CT+RT treatment being poor. Ovarian cancer causing acute intestinal obstruction was amongst those attributing intestinal obstruction. This was again probably because of high incidence of high stage disease. Incidence of strangulation in intestinal obstruction was only 03%, which was at par with figure in literature.<sup>(8,9,12,13)</sup> The operative mortality for intestinal obstruction was 13% where as the morbidity rate was as high as 30% with recurrence rate of obstruction being 13%. The figure was almost akin to the figure in literature.<sup>(7-14)</sup>

As opposed to the literature data where the incidence of haemorrhagic cystitis following CT/RT is as high as 40-68 percent<sup>20</sup> in our study it was only 17% probably due to vigorous hydrotherapy and meticulous use of mesna. Of course there are no clinical predictors to indicate which patient will experience this type of complication.

As regard to GI bleeding about 60<sup>s</sup>, of bleeding were controlled by endoscopically fulguration or cauterization. This figure though little less, it has been found in literature that 75% cases<sup>17-18</sup>, haemorrhage gets controlled by expert interventional endoscopist.

#### ACKNOWLEDGEMENT

I am thankful to Prof. B.K. Patnaik, Dr. R.C. Mishra &

Dr. P. Devi of Department of Surgical Oncology, AHRCC, Cuttack for their able guidance and assistance during preparation of this study.

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### HHS AFFIRMS VALUE OF MAMMOGRAPHIES

The US Preventive Services Task Force (USPSTF) has updated its recommendation for screening mammography. The USPSTF now recommends that mammography be performed every one to two years on women 40 and over; a change from its 1989 and 1996 recommendations for the exam on women 50 and over. This updated recommendation affirms the existing position of Health and Human Services (HHS) and the National Cancer Institute (NCI) on the value of mammography. The USPSTF is the leading independent panel of private sector experts in prevention and primary care, and is sponsored by HHS's Agency for Healthcare Research and Quality (AHRQ). To view the breast cancer screening recommendation and materials for clinicians and patients, call 1-800-358-9295, or visit: <http://www.ahrq.gov/clinic/3rduspstf/breastcancer/>.

### ANNOUNCEMENT

The 3rd world congress of WFSOS (World of Federation of Surgical Oncology Societies) is being held from 3rd to 6th March' 2003 at Los Angeles together with American Society of Surgical Oncology. For detailed information please contact :-

**Prof. M. G. SMOLA**

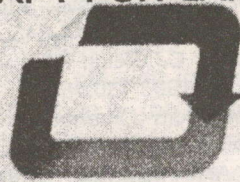
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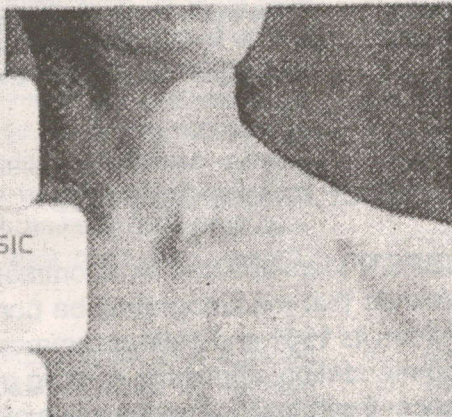
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# MINIMALLY INVASIVE TECHNIQUES IN BREAST CANCER MANAGEMENT

Dr Vishal Gupta, Prof Ravi Kant, Prof PN Agarwal

New Delhi

With the advancement in technologies, the surgical approach to breast cancer has shifted from radical surgery to minimally invasive surgery. Minimal invasive ablation of tumor is possible with a variety of approaches. The goal is either to excise the tumor percutaneously or cool it (with cryotherapy) or heat it (with radiofrequency ablation, focused ultrasound, or laser interstitial therapy) sufficient to cause complete cell death. These developing technologies may provide treatment options that are cosmetically and psychologically more acceptable to the patients, but they need further investigations to prove that they are oncologically sound.

Minimally invasive techniques for the breast cancer treatment

1. Stereotactic excision
  - a. Advanced breast biopsy instrumentation
  - b. Vacuum assisted core biopsy instruments: Mammotome, Minimally Invasive Breast Biopsy (MIBB)
2. Cryosurgery
3. Laser interstitial therapy
4. Radiofrequency ablation
5. Radio-guided localization of nonpalpable tumors

## 1. Stereotactic excision:

With the increasing use of screening mammography, most women with breast cancer now present with small tumors that can be removed with breast conservation therapy. New systems for performing biopsy have been developed in which the size of the tissue can be maximized while the procedure remains relatively noninvasive.

### A. ABBI system<sup>1</sup>:

It was designed as an alternative to excisional biopsy for the diagnosis of nonpalpable tumors. Using three dimensional Stereotactic localization, the surgeon guides an axial wire to the center of the tumor. A surgical cannula up to 20 mm in diameter is then inserted down this axial guide and used to remove tissue cylinders that encompass the tumor. Although the amount of tissue that can be removed is only about half as much as would be possible with a needle-directed excisional biopsy, that amount is still significantly larger than that obtained through a core biopsy and does not require multiple passes of needle. It has additional advantage of obtaining tumor margins for pathologic analysis. Disadvantage include 20mm incision for placement of cannula, and the cannula must be placed precisely because only a small distance may separate the tumor edge and the cut surface of the tissue cylinder. The sensitivity and specificity of ABBI biopsy for the diagnosis are excel-

lent. The positive margins and residual tumor rates are compared to those obtained with the use of wire localized excisional biopsy. The role of this technique for the treatment of breast cancer remains to be evaluated as a part of multicenter clinical trial.

### B. Vacuum assisted core biopsy instruments<sup>1</sup>:

This represent significant advancement in technology. Two systems are currently in use: Mammotome and MIBB. Both systems use a vacuum to pull tissue into a sampling chamber, where it is removed with a high speed rotating knives. Then the specimen is suctioned in a chamber outside the breast, where it can be removed. The advantage of this device is the ability to obtain contiguous samples from the same area by rotating the device in a circular motion rather than having to with draw and reinsert it. These can also be used to insert radioopaque marker at the site of to mark the location of lesion if further treatment is needed. The Mammotome uses internal oscillating knives, whereas the MIBB uses an externally oscillating knife and thus can sample specimens up to 25% larger than those of the Mammotome. The disadvantage of using vacuum assisted core biopsy instruments to both obtain a diagnosis and completely excise a lesion are the inability to evaluate margins status and reconstruct the histologic architecture of the tumor. In one study<sup>2</sup> Vacuum assisted core biopsy was done in 26 lesions. 8 lesions were found malignant on both vacuum assisted biopsy and on histopathological examination of excised lesions. Similarly Vacuum assisted core biopsy identified 5 out of 6 atypical lesions.

### 2. Cryotherapy:

During open surgery, cryosurgery can treat very large tumors. The hypo-echoic iceball formed during cryotherapy can be monitored by intraoperative ultrasonography. Cellular damage is believed to result from disruption of the membrane during the freeze/thaw cycle. By using a needle through which liquid nitrogen is circulated, breast tissue can be cooled from 37 degree to -55degree Celsius with in 15 seconds. Although cryotherapy has been useful for breast cancer treatment in animal models, the only human trial to date has involved one patient who was successfully treated for two lobular carcinoma<sup>3</sup>.

### 3. Laser ablation/ focused ultrasound:

Laser interstitial therapy (LITT) causes cell death by hyperthermia by means of laser energy delivered through a fiberoptic probe inserted into the tumor under imaging guidance. In one pilot study by Dowlatshahi and colleagues<sup>4</sup> recently reported results from their study of stereotactically guided LITT for occult breast lesions in

36 patients after confirming the diagnosis of malignancy with an image guided needle core biopsy. Patients were then positioned on a stereotactic table and treated with a 16- to 18-gauge probe with an optic fiber that transmitted a predetermined amount of energy. A multisensor thermal probe, placed parallel to the laser probe, displayed central and peripheral temperature during ablation, with the endpoint being 60 degree C for all sensors. The average duration of procedure was 20 minutes. The entire patient then underwent standard surgery 1-8 weeks after the laser therapy. Complete tumor necrosis was achieved in 66 % of cases. Most of the work with LITT has involved either theoretical or animal models. LITT has also been evaluated in benign lesions<sup>5</sup> like fibro adenoma. Focused ultrasound is still an investigational tool requiring further studies to establish its role in breast cancer management.

#### 4. Radiofrequency ablation<sup>1</sup>:

Destruction of solid tumors by RFA results from the frictional heat generated by intracellular ions moving in response to an alternating current. The current flows from an uninsulated electrode implanted in the tumor to a grounding pad applied externally to the skin. Hyperthermia from RFA is thought to induce cell death by affecting cell membrane fluidity, cytoskeletal protein structure, and nuclear structure, including disruption of DNA replication. The RF probe is positioned under sonographic guidance, and the procedure is carried out during real time sonographic monitoring. Ablation zone are visualized as hyperechoic zones, and treatments stopped when the entire tumor is replaced by a hyperechoic area. When histologic samples are available, tumor destruction can be verified but staining the zone of ablation with either hematoxylin and eosin or NADH-diaphoreses. The first study of the feasibility of RFA in breast cancer was reported by Jeffrey and colleagues in 1999<sup>6</sup>. They treated 5 patients with locally advanced breast cancer (average size 4-7 cm) only a portion of the tumor was ablated so that the margin between ablated and non-ablated tissue could be assessed after mastectomy or lumpectomy. In 4 patients, complete ablation was found in an area of 0.8-1.8 cm diameter; tumor in fifth patient had a small area of viable cells lining a cyst. They concluded that RFA would be most effective for the treatment of tumors smaller than 3 cm. In another study<sup>7</sup> sonographically guided RFA was evaluated in 26 patients with stage T<sub>1</sub> & T<sub>2</sub> breast cancer. The treatment plan was to ablate the tumor and a margin of at least 5 mm of surrounding breast tissue. They achieved com-

plete coagulation necrosis in 25/26 patients. The only complication was full thickness burn in one patient whose tumor was immediately beneath the skin.

#### 6. Radio-guided localization of nonpalpable tumors (ROLL)<sup>8</sup>:

Today, small, palpable lesions are normal in symptomatic breast clinics and with screening nonpalpable lesions with lymph nodes are commonly identified. The current proportion of non palpable breast cancer is ~30%. This poses important new challenges to breast surgeons. Options for localizing non palpable lesions include use of a hooked wire, skin marking or ROLL. In ROLL technique, after injecting carbon or large molecular weight colloids labeled with radio isotope (human serum albumin labeled with technetium-99) around the cancer under ultrasound or stereotactic guidance, the surgeon is guided during surgery by the use of hand held gamma radiation detector which picks up signals from the radioactivity injected around the mass lesion or microcalcification and allows a resection to be performed easily with the suspicious area to be removed together with an adequate and uniform margin of healthy tissue.

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## POST MASTECTOMY LYMPHEDEMA: AN OSTRACIZED PROBLEM

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Apart from recurrence, lymphedema is the most dreaded sequelae of breast cancer treatment. Approximately 15-20% of breast cancer patients suffer from lymphedema. It leads to disfigurement, discomfort and disability of the arm apart from swelling of the arm but still it is ignored. Many times the patients are told that they have to live with it. The cause of lymphedema is the destruction of the lymphatic vessels either because of surgery or radiation or both. It may arise immediately after treatment or not show up for years. Various methods have been used to measure the lymphedematous arm. The traditional method is to use the measurement 10 cm above or 10 cm below the Olecranon or the lateral epicondyle and to compare it with the opposite side. Lot of controversies existed about that how much difference should be taken as lymphedematous limb as it varied from 2 cm-10 cm difference and the incidence of lymphedema has been stated as per the difference in size. So the studies where the difference was taken as 2 cm, the incidence has been reported very high<sup>1</sup> as compared to the studies where the difference was taken at 10 or more cm<sup>2</sup>. As because of the various changes in the contour of the arm, the method is not very reliable. Other method is to measure the arm volume by water displacement. The value of more than 200 ml displacement is taken as lymphedema<sup>3</sup>. Other sophisticated methods are dichromatic absorptiometry<sup>4</sup>, Computed Tomography<sup>5</sup>, Tissue Tonometry<sup>6</sup>, Magnetic resonance imaging<sup>7</sup> and Ultrasound. Various imaging modalities have been used to prevent these complications like ultrasound, MRI, CT scan, Lymphoscintigraphy etc.<sup>8</sup> to avoid unnecessary axillary dissection or to limit the dissection. One can preoperatively look for the status of axillary lymph nodes by means of ultrasonography, immunoscintigraphy, Technitium-99m sestamibi mammoscintigraphy, positron emission tomography using Fluorine-18-fluro-2-denoxy-D-glucose (FDG), lymphoscintigraphy and blue dye to define the sentinel nodes. It was thought that lymphedema may not occur after sentinel node biopsy but such is not the case but the incidence of lymphedema is much less as compared to formal axillary dissection<sup>9</sup>. Avoiding the axillary dissection above the axillary vein reduces the incidence of lymphedema.

Initial intervention for lymphedema are aimed at prevention. Some therapeutic interventions may aggravate lymphedema and may compromise a patient's response

to treatment like venipuncture or giving injections in the same arm, taking blood pressure from the same arm. To avoid trauma and infection of the affected limb, any injections, blood pressure measurements, and administration of intravenous medications should be avoided in the affected arm and should be applied to an unaffected limb.

The quality of life can be improved if the patient is given certain guidelines like keeping skin clean and moisturized, elevate limb while sleeping and travelling, wash with hypoallergenic soaps and cleaners, use electric razors to remove hair to avoid any injury, use mild detergents for clothes, maintain a constant temperature in the home, eat a balanced, nutritious diet, treat infections early and thoroughly with antibiotics, exercise (walking, swimming, prescribed isometrics), wear prescribed garments and or bandages, avoid cuts, burns, and insect bites, avoid sunburns, wear loose-fitting clothing, avoid heavy, traumatic, or repetitive exercises and avoid lifting heavy objects.

Most patients with chronic secondary lymphedema are best managed by non-surgical measures. Patient education on activity levels and infection prophylaxis are important factors in the long-term control. Physical therapy and compression garments or sequential gradient compression type pumps are recent additions to the therapeutic armamentarium. Since the accumulation of protein-rich fluid creates a culture that encourages bacterial growth, infection prophylaxis is important for those patients with chronic lymphedema who are prone to repeated infections. Patient education relating to skin care (e.g. avoidance of injury, care of open wounds, and proper nail care) is necessary. The risk of cellulitis and infection to the arm or leg correlates with the severity of the lymphedema, and each subsequent episode of infection increases the risk of bacteremia and systemic toxicity, thereby exacerbating the lymphedematous condition. Patients are instructed on early identification of infection. The use of antibiotics at the first sign of infection may prevent a serious cellulitis.

Not all forms of exercise are beneficial to patients with extremity lymphedema, but those that increase circulation by incorporating use of the affected limb are recommended (e.g. swimming, hiking, walking, isometric exercises, and active range of motion exercises). Activities that involve heavy lifting or repetitive motion cause pooling of the fluids are avoided. Patients with

lymphedema of the dominant arm should avoid sports such as tennis and racquet ball. Use of a compression garment during exercise will help to decrease pooling of fluids.

The overall treatment plan is individualized based on the patient's specific needs and deficits, and it included instruction by a physical therapist on exercises to regain or maintain normal range of motion and strength, as well as education regarding limb elevation, skin care precautions, massage techniques, pumping (isometric) exercises and soft-tissue mobility. A physical therapist not only can provide education on the mechanism of lymphedema, signs and symptoms, physical therapy goals, and treatment options, but also can train the patient to use compression garments and to monitor sequential gradient compression-type pumps.

Due to communications of the lymphatic vessels between various body regions, physical therapy can aid chronic lymphedema by shunting fluid out of the compromised limb (Complete Decongestive Physiotherapy). The physical therapy, which can be performed in a hospital or at home, is offered in two phases. The first phase, which spans a period of four weeks, is divided into four segments, the first focuses on improving and maintaining the normal skin integrity while decreasing the risk of infection. The second involves manual lymphatic drainage, a daily treatment that is designed to remove excess lymphatic fluid and to open collateral lymphatics, thereby allowing unaffected regions to aid the compromised regions in draining excess lymphatic fluid. The third consists of compression bandaging to maintain and increase compartment pressure and to prevent retrograde flow of lymphatic fluid, and the fourth entails specialized physical therapy exercises followed by lymphatic massage. There are several schools carrying out this type of practice as the Vodder School<sup>10</sup>, the Casley Smith Method<sup>11</sup>, the Lerner School<sup>12</sup>. The trunk is massaged first to empty the lymphatics, followed by the areas adjacent to the compromised extremity, the central portions of the limb, and finally the distal portion of the arm or leg. In theory, this massage therapy forces the excess lymphatic fluids into watershed regions of the body and provides access to the unaffected lymphatic collateral circulation. The second phase of physical therapy consists of fitting the patient with specially measured compression garments. Evaluation has shown that application of the techniques in these two phases can reduce the size of the affected limb by up to 65%<sup>13</sup>. In addition to the expertise of skilled personnel, a commitment by the patient to complete the time-consuming program is required in order to realize the benefits of therapy and to maintain the achieved improvements.

Few drugs like benzopyrones for the treatment of chronic lymphedema are being studied but with doubtful results<sup>14</sup>.

Benzopyrone like Coumarin breaks down the larger protein molecules and may facilitate absorption of protein into the vascular system at the level of the capillaries.

Compression pumps are being used more often in the medical management of chronic lymphedema<sup>15-17</sup> while clinical massage can be effective, constraints created by the need for experienced personnel and the time needed to perform the technique limit the availability of this treatment on a regular basis. Researchers have focussed duplicating the beneficial effects of massage by developing mechanical and/or air compression devices. The older intermittent, single-chamber, non-sequential compression pumps provide even pressure throughout the treated extremity. These do not provide a direction for the transfer of fluid, thereby allowing some backflow of the lymphatic fluid. This retrograde flow, therefore, may cause increase lymphatic fluid in the proximal tissues of the limb. Newer devices provide sequential compression. Such machines force compressed air into a sleeve that fits over the affected limb. There are standard and gradient sequential systems. The standard sequential compression system without calibrated gradient pressure is a multi-chamber pump that delivers the compression at the same pressure in each garment section from distal to proximal tissues. The peristaltic sequential gradient compression system more closely mimics normal extremity pressure changes. The pressures delivered by the sequential gradient system differ by approximately 10 mmHg between each chamber. The higher pressures are delivered to the distal chamber, with each chamber having approximately 10 mm Hg less pressure than the preceding chamber. For increased efficiency, the delivery of lymphedema therapy must be not only physiologically compatible with the lymph system, but also powerful enough to imitate the rhythmic motion of the skeletal muscles in order to transfer the excess lymphatic fluid in a distal-to-proximal fashion. The most advanced sequential compression systems consist of air compression pumps, sequential pneumatic garments, and air hoses that connect the pump to individual compartments of the garment. The system provides continuous pneumatic compression to gently massage the arm or leg. Once connected, the garment will inflate peristaltically up the limb: the first chamber inflates and holds, followed by the second chamber, and when the third chamber inflates, the first one deflates. This sequential compression continues up the limb to provide maximum therapeutic pressures while relieving unnecessary pressure on tissues behind the wave of compression. This therapy can be self-administered at home.

Contraindications to the use of gradient sequential compression devices include massive edema of the extremity secondary to congestive heart failure, concurrent neu-

rological symptoms, ischemic vessel disease or severe arteriosclerosis, deformity of the limb, metastatic disease in the involved extremity, and skin changes (e.g. dermatitis, gangrene, recent skin grafts, and especially cellulitis and deep-vein thrombosis).

During the last century, a number of surgical treatment plans have been attempted to reconstruct or bypass the lymphatic channels. These treatments ranged from burying silk and other synthetic materials in the soft tissues to mimic lymphatic channels, using the omentum, to removing the subcutaneous fat and placing a dermal flap within the muscle to encourage superficial to deep lymphatic anastomosis and carrying out the anastomosis between the lymph nodes and lymphatics to the veins<sup>18-19</sup>. About 30% of patients undergoing a surgical repair had good sustained results. The overall success rate is low, and many of the patients regressed to their pretreatment girth measurements within three to four years following the original reduction surgery. Patients who have massive lymphedema with overlying skin breakdown are candidates for the Charles procedure where skin and subcutaneous tissue is removed to the level of the underlying fascia, and the extremity is covered with split thickness skin grafts. Although the cosmetic appearance of the limb is not favorable, this procedure can allow a patient who may have immobile limb to return to a normal activity. A sufficiently long hospitalization is required and wound-healing problems can occur in the skin-grafted areas, but the risk-benefit evaluation is favourable since these patients may not have any activity of that limb. The second category of patients for surgical treatment consists of those who have demonstrated no further progress from optimal conservative therapy, yet remain with significant extremity enlargement but with good skin cover. This group may benefit from excision of skin and subcutaneous tissue in a staged approach. The inner aspect of the extremity is addressed first. In the second stage, an excision is carried out on the lateral aspect. This technique can be performed with a low morbidity and short hospitalization. To maintain the improvement that is obtained surgically, long-term compression garments are necessary, as well as all aspects of optimal care of the affected extremity. Various types of lymphnode anastomosis may have variable results. However, neither surgery nor conservative therapy will produce long-term results without lifelong diligent care. The oncologist often is faced with the problematic management of chronic lymphedema of the arm. Until recent years, this condition had been neglected due to poor understanding of the causative and abnormal physiology behind the condition. Consequently, most patients were either under treated or completely untreated. This resulted in a lifelong struggle for many patients that eventually led to crippling and disabling consequences. In

the past, patients were told that this condition was something they had to live with. Knowledge of the physiology and patho-physiology of lymphedema is helpful to understand the rationale of available prophylactic and therapeutic approaches. The degree of edema is established prior to initiating short- or long-term care. Surgical intervention is useful for some patients, but the current standard of care is conservative medical management aimed at minimizing existing edema while controlling the formation of new edema. Patient education includes instruction in exercises, elevation of the arm or leg, and infection prophylaxis, as well as activities to avoid. Physicians, nurses, physical therapists, and occupational therapists all have active roles in the care of chronic lymphedema. External compression therapy using peristaltic sequential gradient compression devices assist control. This treatment can be given intermittently at home. A recent approach to long-term care, coupled with therapeutic and emotional support, can maximize the quality of life of patients with chronic lymphedema.

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### SIXTH EDITION AJCC CANCER STAGING MANUAL/HANDBOOK NOW AVAILABLE

The American Joint Committee on Cancer (AJCC) has announced the publication of the sixth edition of the AJCC Cancer Staging Manual. The fully revised and updated sixth edition features major revisions to the TNM staging system, which provides a standardized method for classifying the extent of cancer at diagnosis and estimating the risk of recurrence and death from cancer. Organized by disease sites into 48 comprehensive chapters, the sixth edition features much anticipated major revisions to the chapters on melanoma and breast cancer. Numerous new line drawings illustrate key anatomic sites throughout the text. A Handbook version of the manual that is conveniently sized to fit the pocket of a lab coat is also available. The manual is \$59.95, and the handbook is \$39.95. A Springer-Verlag Web site devoted to the AJCC Sixth Edition includes the complete table of contents, a sample chapter, sample staging form, and information on the features and benefits of the new edition. Visit <http://www.cancerstaging.net/> to order a copy of the sixth edition, which will go into effect with cancer cases diagnosed beginning January 1, 2003. In addition, preliminary plans are under way to host a videoconference geared toward both registry and physician personnel who wish to understand the changes in TNM staging for the specific sites for use beginning in January 2003. The TNM Videoconference is scheduled for Thursday, November 21, 2002, and will be held at a time that is convenient for live production in all time zones throughout the United States. More specific details on the videoconference will be provided in a future issue of ACS NewsScope.

## CARCINOMA GALL BLADDER : A SONOGRAPHIC REVIEW

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Gall Bladder is the commonest cancer of the hepatobiliary system and the fifth most common G.I cancer. Peculiarly, gall bladder cancers do not have a uniform distribution world-wide. The highest incidence worldwide is reported in females from Israel (13.5/100000). There are endemic pockets in Latin America, Mexico, Bolivia, India etc<sup>1</sup>. In India, the incidence of carcinoma gall bladder was found to range from 2.5-4.4 per 100,000 population. Such a distribution suggests a possible role of diet and environment in the pathogenesis of the disease. Unfortunately diagnosis is frequently delayed, as gall bladder cancers are relatively silent, jaundice being a feature of advanced disease.

In India, carcinoma of the gall bladder occurs predominantly in elderly females. The incidence increases with age. Over 90% of patients are also above 50 yrs with a peak incidence between 60-65 yrs and female to male ratio being 3:1. However, the incidence of carcinoma gall bladder is very high in North India as compared to South India, and also the patients are found to be of a comparatively younger age group<sup>2</sup>. It was found in a retrospective study in TMH Mumbai, that a majority of the patients hailed from UP followed by Bihar. These statistics may not give a true picture of the disease in India, but it appears that there is a higher incidence of gall bladder cancer in the Gangetic basin.

### Role of Ultrasound in Gall Bladder Malignancy-

Carcinoma of the gall bladder may present on US or CT as an irregular mass replacing the gall bladder, focal or diffuse gall bladder wall thickening or a polypoidal intraluminal mass. Associated features such a dilatation of the biliary tree due to obstruction at the trifurcation, liver metastasis, peri- pancreatic and portal lymph nodes and punctate calcifications (mucinous adenocarcinoma) within the mass may be seen. Metastasis are seen on imaging in 75% of patients, at the time of diagnosis as direct invasion of the adjacent liver, duodenum, colon, bile duct, stomach, pancreas or rt. kidney. Portal, peripancreatic lymphadenopathy and peritoneal seeding are common. Haematogenous spread is less common. Intraductal<sup>2</sup> extension is a feature seen in papillary adenocarcinoma along with normal spread. In patients with porcelain GB, a polyp measuring > 2 cm is likely to be malignant. GB carcinoma is associated with GB stones in 64%-98.5 cases but gall bladder carcinoma occurs in only 1% of all cases with stones. Associated finding of inflammatory bowel disease, polyposis coli or chronic cholecystitis may be identified on imaging as major complications such as perforation of the gall blad-

der with abscess formation. Differential diagnosis includes xanthogranulomatous cholecystitis, cholecystitis (mass is less than 10 cm in size), hepatic tumour, metastasis from melanoma, lymphoma or leukemia, GB polyp, adenomyomatosis, GB tuberculosis<sup>3</sup>.

With the advent of Color Doppler in sonography, it has been used to some extent, to see increased vascularisation of the Gall bladder wall in cases of inflammation and to study the neo-vascularisation of the gall bladder tumour.

**Intra-operative sonography** has been used to some extent in biliary sonography for

- Identification of biliary calculi
- Identification of biliary neoplasm
- Localisation of the CBD and its relationship to other structures.
- To scan the liver for micro-metastasis.

**Laparoscopic sonography** is the latest development in this modality but has not been used with great success in hepato-biliary disease.

### Finding in Carcinoma of the Gall bladder-

Ultrasonography is the primary modality of investigation in gall bladder diseases, especially carcinoma of the gall bladder. Three major sonographic patterns are described-

**In type I**, the gall bladder is surrounded or replaced by a hypo-echoic and heterogeneous mass. Cystic areas may be seen within it, representing necrosis or residual bile.

**In type II** pattern, there is a focal or diffuse, irregular and asymmetrical wall thickening.

**Type III** is the less common of all and in it a polypoidal fungating mass is seen. It usually has a wide base. It does not change in position, with changing of position of the patient neither does it cause shadowing<sup>3</sup>.

Liver invasion is suggested by lack of a distinction between the gall bladder mass and the liver.

### Sonographic Differential Diagnosis -

It includes complicated cholecystitis and xanthogranulomatous cholecystitis. Polypoid form of carcinoma gall bladder may be confused with non-calcified stone or benign polyp. If a small polyp is found incidentally, it should be removed surgically when it exceeds 1 cms in diameter, when gall bladder stones are associated, when the age of the patient is more than 50 yrs or when the patient is clinically symptomatic.

### Unusual Findings-

The gall bladder may be involved by haematogenous systemic secondaries. Melanoma is the commonest pri-

mary. The lesions are seen as small nodules on the luminal surface or as focal thickening of the gall bladder wall on ultrasound. Gall bladder metastasis can mimic acute cholecystitis clinically.

#### Personal Experience-

In a study, by the author<sup>4</sup> of 720 cases of Surgical Obstructive Jaundice, from Central and North Bihar, over a period of 3 yrs during 1995-1998, it was found that

Jaundice due to benign causes	194 cases	( 27 % )
Jaundice due to malignant causes	526 cases	( 73 % )

Thus in this study it was found that obstructive jaundice due to malignant causes were a major cause (about 3

out of 4 cases).

This data was further analyzed and found that among these surgical obstructive jaundice patients -

1) Malignant block at confluence of Hepatic ducts or CHD due to growth from GB	244	( 33.8 % )
2) Choledocholithiasis	122	( 16.8 % )
3) Peri-ampullary Carcinoma	98	( 13.6 % )
4) Primary tumour of liver	92	( 12.7 % )
5) Secondary tumour of liver	72	( 10.0 % )
6) Carcinoma Head of Pancreas	38	( 5.3 % )
7) Biliary Stricture	30	( 4.1 % )
8) Miscellaneous	24	( 4.2 % )

Cholangiocarcinoma, Budd Chiari syndrome Biliary atresia, Hydatid cyst,

*An epidermological study as well as ultrasonographic screening of Gall bladder diseases with emphasis on Ca GB bladder has been under taken jointly by Tata Memorial Hospital & International Institute of population sciences to find out the cause of rising incidence of Ca GB in Northern India. The role of USG is also being evaluated as a mass screening tool to detect early Ca GB.*

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## CANCER OF THE GALL BLADDER

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A 67 - year-old man was operated upon for symptoms suggesting cholelithiasis; a positive ultrasound and a negative upper gastrointestinal endoscopy had been obtained. On exploration, cholelithiasis was found, but there was a mass within the gallbladder that appeared adherent to the liver. On attempting a cholecystectomy, the mass appeared to have invaded the gallbladder wall and the liver. A Trucut biopsy revealed adenocarcinoma. The presentation of this patient is perhaps the most common way in which gallbladder cancer is diagnosed, in spite of all of the recent improvements in radiologic imaging. Symptoms more typical of benign than malignant disease often precede the diagnosis by many years. It may well be that this patient's symptoms, and those of most patients with cancer, are mostly due to the gallstones rather than the malignancy.

Gall Bladder cancer is a disease of older people and is more common than generally recognized. It ranks fifth in the list of gastrointestinal cancers in the United States (just behind rectum, colon, pancreas, and stomach), but because many cases are diagnosed at autopsy, this frequency may not be apparent to most surgeons. In patients over 70 years of age, as many as 10% of gallbladders removed for presumed benign disease may contain cancer. The only atypical aspect of this case is the patient's gender; women predominate in most series, just as they do with cholelithiasis. In India the incidence is probably higher, about 20 - 25 cases are seen every year in any large referral hospital.

Most patients with gallbladder cancer have stones. Is this because stones and chronic inflammation predispose to malignant change, or because the biochemical factors common to gallstone formation also lead to cancer? No answer is yet possible, but it is interesting that implanted foreign bodies potentiate the carcinogenic potential of chemical agents in the gallbladders of experimental animals.

Will removal of stone-containing gallbladders prevent the subsequent development of cancer? Certainly, since no one has ever developed a gallbladder cancer after cholecystectomy. However, calculations made to investigate the reasonable suggestion to remove all stone-containing gallbladders to prevent cancer work out, on the basis of incidence and mortality figures, to rule against the removal of asymptomatic stones. Certainly, cancer prophylaxis can be added to the reasons to recommend cholecystectomy to patients with symptomatic stones. Whether alternative ways to handle stones (e.g.,

chemical dissolution or lithotripsy) will reduce the subsequent risk of gall bladder cancer remains to be seen. An exception to the general rule to avoid elective operation solely to prevent gallbladder cancer is afforded by the patient with a calcified gallbladder, the so called "porcelain" gallbladder. Cancer may be found in up to 30% of these unusual cases.

Gallbladder cancer has a well-deserved bad reputation. The vast majority of patients are dead within one year of diagnosis. The disease is very aggressive locally, with early spread to adjacent nodes and other structures. Distant spread is uncommon, and many patients die with disease confined to the right upper quadrant. Most gallbladder malignancies are adenocarcinomas, although as many as 4% to 5% may be squamous or adeno-squamous. Only the papillary form carries with it a better prognosis.

Nevin and associates have staged gallbladder cancer. Stage I is defined as intramucosal or in situ disease; stage II, as microinvasive (not through gallbladder muscle); stage III, as locally invasive through gallbladder wall (with or without cystic duct node involvement); and stage IV, as extension into liver, other adjacent viscera, lymph node involvement beyond bile duct nodes, or metastatic spread. Our patient is already in stage III on the basis of the information given to us. Almost all of the long-term cures of patients with gallbladder cancer occur in patients with stage I and II disease, and most follow the discovery by a pathologist of a small focus of cancer unrecognized at operation to remove presumed benign gallbladder disease-the so-called "occult" cancer.

Can a patient with stage III disease ever be cured? Will extension of the resection beyond cholecystectomy alone make any difference in long-term survival? Do chemotherapy and/or radiotherapy have anything to add? Unfortunately, there is little solid evidence to justify a clear affirmative answer to any of these questions. Given 100 patients with a story and findings similar to ours, less than 10% would survive one year unless the histology showed a papillary pattern. Anecdotal reports of palliation or even prolonged survival after radiotherapy for gallbladder cancer exist, but they are few and far between. Chemotherapy with 5-fluorouracil, either alone or in combination with other agents that of platinum based, has had little reported success. I know of no controlled series that demonstrates any survival advantage to the use of any of the currently available adjuvant thera-

pies, which brings us back to resection.

To place either limited or extended operation (segment 5) in perspective, we need to look at the characteristics of long-term survivors and at patterns of failure. In 1970, Vaittinen of Finland summarized the world's reported experience up to that date in an encyclopedic article.

**TABLE -1.**

**Extended Operations for Gallbladder Cancer \***

	Liver Resection		Lymphadenectomy Without Liver Resection	Overall
	Wedge	Lobectomy		
Patients	46	23	3	72
Operative deaths	4	9	0	13(18%)
DWD <3½ yr	31	12	3	
AFD < 5yr	4	1	0	
AWD < 1 yr	3	0	0	
Lost to follow-up	1	0	0	
5-yr. Survivors	3 <sup>s</sup>	1 <sup>s</sup>	0	4 (6%)

(\*Adopted from Foster JH: Carcinoma of the gallbladder, in Way LW, Pellegrini CA (eds): Surgery of the Gallbladder and Bile Ducts. Philadelphia, WB Saunders Co, 1987.

Liver resection was combined with regional lymphadenectomy in some of these cases.

\$One patient after wedge resection and one patient after lobectomy died with disease after 5 yr.

DWD - dead with disease; AFD = alive free of disease; and AWD = alive with disease)

A more recent review that I completed adds to the experience. Ninety-two patients who survived five years or more after operation were found in this literature review. The extent of therapy was known for 78 patients, 73 of whom had cholecystectomy alone; three other had extended resection, and two received adjuvant radiotherapy. In 36 of 43 five-year survivors for whom sufficient information was available, the surgeon was not aware of the cancer during operation.

Survival of patients with disease confined to the gall bladder wall (i.e. stages I and II) ranges from 25% to 100%. Thirty-four percent of patients with papillary cancer in one series lived five years, while less than 10% of patients with other histologic types lived one year. Clearly, the patients with early disease have a fairly good prognosis after cholecystectomy alone. When a pathologist finds an "occult" carcinoma without invasion through the gallbladder wall, there is no current justification for reoperation for wider excision.

Patients who had recurrence usually die within one year. Direct extension into liver; invasion of adjacent duodenum, stomach, or colon; and intraductal spread (particularly with papillary tumors) are common, as is embolic metastasis to the liver. Diffuse peritoneal seeding or dissemination to lungs, brain and bone is rare and late. Vaittinen, analyzing 1,611 patients, found at the time of the first operation and diagnosis, regional and retroperitoneal lymph node spread in 65% of patients, embolic

spread to liver in 51 % of patients, and direct invasion of liver in 52% and of bile ducts in 42% of patients.

These findings would suggest that an aggressive resection combined with regional lymphadenectomy might have merit. However, Vaittinen found only seven five-year survivors after 187 extended operations. Table-1 attempts to document the reported experience with liver resection and/or lymphadenectomy in 72 patients with more recently reported cases. Note that operative mortality was three times the five-year survival rate in this small series. However, the occurrence of nine deaths after 23 liver lobectomies is much higher than we should expect today, given modern refinements in technique and greater experience.

Does hepatic lobectomy have any place in the treatment of patients with gallbladder cancer? I think not on both anatomical and pathologic grounds. The gallbladder lies in the central (interlobar) plane of the liver, and one could argue as well for left as for right lobectomy. I know of no report of curing a patient with disease spread into the liver beyond the immediate vicinity of the gallbladder. Perhaps cure is possible with the resection of a few satellite nodules resulting from reflux into adjacent portal venules, but wedge excision of the gallbladder bed (Segment 5) should accomplish this as well as extended lobectomy. For similar reasons, I doubt that liver transplantation will ever provide an answer for gallbladder disease.

In the past, Glenn and Hayes recommended wedge excision of the gallbladder bed and regional lymphadenectomy. More recently, Adson has reported results after this operation in three patients with stage I and II disease, and in four who had microinvasion of the side of the gallbladder wall. The three with early disease were still alive three to ten years later. Of the four patients with disease outside of the gallbladder wall, two are dead with disease at 3 1/2 and 6 years, and two are alive at the time of reporting, apparently free of disease at less than 1 year and at 13 years.

A position that cholecystectomy alone is the optimal operation for gallbladder cancer could be strongly defended. Cholecystectomy will probably cure the majority of the "curable" patients. There simply is not yet enough evidence to recommend more radical reoperation. In fact, the reported experience would strongly recommend against such a course. However, the patient under consideration here pushes us into a different perspective. An astute surgeon has recognized the disease beyond the gallbladder and has documented its local invasion into adjacent liver. The surgeon should continue to reoperate, with particular attention to the rest of the liver and the regional lymph nodes. If intraoperative ultrasonography is available, the surgeon should explore the liver, particularly in the area immediately

adjacent to the gallbladder. If embolic disease is found in the liver or in a node beyond the bile duct, no further resection should be done. I would hold radiation therapy until a symptomatic recurrence was obvious, and I would advise the patient to get his affairs in order.

If no embolic disease is found, in spite of the lack of supporting scientific evidence, I would recommend a wedge excision of the gallbladder bed and a limited regional lymphadenectomy. The wedge excision should include a 2-cm margin of normal liver, which can usually be teased out using blunt suction technique without hilar control of vessels and ducts. The lymph nodes around the cystic duct, Calot's triangle, and along the common bile duct should be taken down to where the bile duct disappears into the duodenum, avoiding circumferential dissection of the common bile duct. A Kocher maneuver will assist this dissection, but the additional exposure should not tempt the surgeon to extend the lymphadenectomy to include peripancreatic nodes.

Other alternatives would be : (1) to close the abdomen and treat the gallbladder bed (previously outlined by metal clips) with postoperative radiotherapy; or (2) to close the abdomen and return in three months for a second look Laparoscopy on the theoretical grounds that "curable" recurrent disease would still be localized and perhaps resectable, that "incurable" disease would be recognizably out of bounds, and that finding no disease would require no further resection and allow a more favourable prognosis. Therefore, palliation rather than resection should be the goal in gall bladder cancer infiltrating into the liver. If the right and left hepatic ducts communicate, the easiest procedure is a

cholangioenteric anastomosis between the duct by draining the anterior segment of the left hepatic lobe into a Roux-en-Y jejunal loop.

My bias is that if there is any chance at cure in the situation presented to us, it is with extended resection at the first procedure. "Bias" is the correct noun to describe a "gut" feeling unsupported by scientific evidence; "naively optimistic" might be appropriate qualifiers of that noun.

#### CONCLUSION:

Carcinoma of the gall bladder is a uniformly depressing disease. Perhaps attention should be focussed on detecting it earlier, preventing its occurrence by a study of its aetiology, or doing cholecystectomy for stones whenever they are present rather than by performing ever bigger operative procedures which have a high mortality rate and whose benefits are doubtful.

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*This newsletter of IASO is going to be a regular feature and will be published twice a year. It will contain relevant professional news, events and recent topics of common interest. Members are requested to make use of the newsletter for dissemination of any valuable information.*

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## Letter to Secretary

Surg/02-03/17/01-04-2002

Prof. Ravi Kant  
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Dear Ravi Kant

### WFSOS

I trust this letter finds you in best of health. There are some welcome developments in the affairs of WFSOS which I wish you to know to highlight in your next issue of IASO.

- \* WFSOS is now a full member of UICC giving it the most coveted status of leader organization in Surgical Oncology.
- \* The Journal of Surgical Oncology welcomes scientific articles from the members of the IASO for publication.
- \* I am in the last tenure of being member executive committee of WFSOS. The executive will be meeting at Lillie, France on 17-04-2002. I am attending this meeting without any financial burden to the IASO. I will recommend that IASO be asked to forward the name of its future representative on the panels of WFSOS. However, if you have any particular name for this purpose, please send it to WFSOS with a copy to myself.
- \* I shall appreciate that membership of IASO to WFSOS is proudly acknowledged in the news Bulletins and official pads etc. so that the General Membership is aware of our exalted relationship with the WFSOS.

I will be attending Ooty, NatCon. I hope your membership drive is succeeding in enrolling Surgical Oncologists to be able to collectively improve the status of Surgical Cancer care in India.

Kindly let me know if you have any message or information to be given to WFSOS. I leave for the meeting on 14th April 2002.

With best wishes

Yours Sincerely

(H.S. Shukla)  
Head, Division of Surgical Oncology

### **Member Organisations**

UICC welcomes the following new members.

#### **International**

World Federation of Surgical Oncology Societies, London, UK  
(Associate Member).

#### **Canada**

Cancer Programme, Centre for Chronic Disease Prevention & Control, Population and Public Health Branch, Health, Canada, Ottawa.

#### **Korea (South)**

Research Institute National Cancer Centre, Gyeonggi-do.

#### **Nepal**

B.P. Koirala Memorial Cancer Hospital, Chitwan.

#### **Singapore**

National Cancer Centre, Singapore.

#### **Spain**

Association Vivir Como Antes, Valencia.

#### **USA**

Cabrini Medical Centre, New York.

*This is a communication between Prof. Higgins of WFSOS and Dr. G. Ramantanis regarding activities of WFSOS received through Prof. H. S. Shukla, Varanasi*

World Federation of Surgical Oncology Societies.

**Dr. G. Ramantanis**  
Hellenic Society of Surgical Oncology  
"Saint Savas" Hospital  
171 Alexandra Avenue  
Athens  
Greece

September 27th 2001

Our Ref: NO/H

Dear George

I was very pleased to see you again at the WFSOS/SICO meeting in Naples. I am writing to you about some issues in accreditation or credentialling in surgical oncology which is evolving and which, I think will help define the discipline of surgical oncology more clearly in the future:-

1. The Surgical Section of the European Union of Medical Specialists (UEMS) and its related European Board of Surgery have, during the past three years accepted that Surgical Oncology can be a Division with the Surgical Section of the UEMS and the European Board of Surgery (EBS). Other Divisions with the board are Trauma Surgery, Transplantation, Coloproctology, Hepatobiliary Surgery, Vascular Surgery, Endocrine Surgery. Some of these divisions have already established an examination leading to a Qualification in that division. When an examination is passed, the candidate is given a certificate of EBSQ and this could be an EBSQ in Vascular Surgery (EBSQ) (Vasc). The Surgical Section and European Board have authorised and approved the establishment of an EBSQ examination in Surgical Oncology. This decision was ratified at a recent meeting in Jersey in Iceland.
2. The European Society of Surgical Oncology (ESSO) has been discussing the issue of Qualification in Surgical Oncology for some years and it was thought to be important that the surgical oncology representatives at the UEMS conferred with the Education Committee.
3. Representatives of ESSO agree to a training system and qualification formula. Two meetings took place and the following decisions were reached (a) all surgeons who propose to treat cancer patients should have training in oncology, (b) all surgeons should undergo a basic surgical training programme followed by a higher training programme in their area of interest. This area could be general surgery or one of the other divisions mentioned above. People who have completed their training programmes would be required to have spent a period of time at least 6 months in a dedicated multidisciplinary surgical oncology programme. (c) a qualification examination in surgical oncology could be divided into Part I and Part II. Part I would be essentially a secretarial examination where the candidate would submit a curriculum vitae together with details of the training programme undertaken. The candidate should demonstrate evidence of having completed the training programme including demonstration of a specific length of time spent in a multidisciplinary oncology system. This curriculum vitae would be accompanied by letters of approval from the Head of the Training Unit together with a letter of approval from the Head of the National Surgical Oncology Association or Society. Part II of the process would be an examination probably combining a multiple choice questionnaire and an oral examination. This examination could most conveniently be conducted at a time when the Surgical Oncology Societies meet such as at ESSO meetings.

4. an agreement was reached between ESSO and UEMS representatives that this examination process be developed as soon as possible.
5. The World Federation of Surgical Oncology Societies has also been discussing the issue of a qualification examination along the same line as proposed in paragraphs 1 and 2 above and at a recent meeting of the Council of the WFSOS in Naples, it was agreed that an examination be proposed and established as soon as possible along the same lines as that envisaged for the European Board of Surgery Examination (EBSO). The WFSOS also agreed that the first such examination take place at the time of the next ESSO meeting in Lille in April, 2002. You will be aware that WFSOS will have a symposium at that meeting.
6. The coming together of these three streams will allow the examination to take place in Lille in 2002. It is envisaged that this examination will be advertised in the Surgical Oncology Journals and will also be made known through the National Surgical Oncology Societies. We hope that the WFSOS secretariat will be established soon in the UICC Headquarters in Geneva for processing of applications. Once the candidate passes the examination in Lille they will be given an EBSQ Certificate (EBSQ Oncl). At the same time candidates can, should they wish, be given a certificate from WFSOS.
7. These developments are exciting and challenging. I thought I should share this information with you so that you and your colleagues may be able to explain to your trainees what developments are occurring and this may help guide them in their careers.

With kindest wishes.

Yours sincerely

Niall O'Higgins

### IASO - Baroda Travelling Fellowship

Rs. 5000/- only will be provided to a young surgeon who is aspirant to and has arranged attachment / observership with a Surgical Oncologist / Centre in India for 4 to 5 weeks.

An application on a plain paper enclosed with the Curriculum Vitae, place of attachment, acceptance from the centre, short objectives of the reasons for attachment and forwarding letter from the 2 members of the Indian Association of Surgical Oncology (IASO) should be sent to the office of the Secretary, IASO. The applicant must be MS in Surgery and citizen of India.

### "PALLIATIVE CARE BY THE SURGEON: HOW TO DO IT" HIGHLIGHTED IN JACS

The proceedings of the symposium "Palliative Care by the Surgeon: How to Do It," which was held during the College's Clinical Congress last fall, have been published in the April issue of the Journal of the American College of Surgeons. Topics addressed during the symposium include "Chronic Pain Management and Neuropathic Pain," "Malignant Bowel Obstruction," "Dyspnea and Withdrawal of Ventilatory Support," "Asthenia and Cancer Cachexia," and "Lingering in the Intensive Care Unit." The full text of the symposium proceedings can be accessed at: <http://www.journalacs.org/>.

## EVENTS

Date	Name of Meeting	Place	Secretariat
<b>September</b>			
1-4	9th Central European Lung Cancer Conference	Vienna Austria	Mondial Congress Vienna, Austria Fax: +43 1 586 91 85 Email: congress @ mondial.at
17-21	21st Annual Meeting of the European Society for Radiology and Oncology (ESTRO)	Prague Czech Republic	ESTRO Office, Brussels, Belgium Fax: +32 2 779 54 94 Email: info @ estro.be www.estro.be
<b>October</b>			
6-9	44th Annual Meeting of the Society for Therapeutic Radiology and Oncology	New Orleans Louisiana USA	G Smith, ASTRO Fairfax, Virginia, USA Fax: +1 703 502 7852 Email: gsmith @ astro.org www.astro.org
18-22	27th European Society for Medical Oncology (ESMO)	Nice France	ESMO Congress Secretariat Lugano, Switzerland Fax: +41 91 950 27 07 Email: 16apcc @ pcsi.com.p
<b>November</b>			
1-3	Oncology Nursing Society 3rd Annual Institute of Learning	Seattle Washington	Oncology Nursing Society Pittsburg, Pennsylvania, USA Fax: +1 412 921 6565 www.ons.org
10-16	9th Hong Kong International Cancer Conference	Hong Kong China Centre	9th HKICC Secretariat Dept of Surgery University of Hong Kong Medical Queen Mary Hospital, Pokfulam Hong Kong, China Fax: +852 2919 1186 Email: medecon @ hku.hk www.hku.hk/
19-22	2002 Meeting of the European Organisation for Research and Treatment of Cancer (EORTC) the American Association for Cancer Research (AACR) and the National Cancer Institute (NCI) Molecular Targets and Cancer Therapeutics	Frankfurt Germany	L Hendrickx, FECS Conference Unit Brussels, Belgium Fax: +32 2 775 02 00 Email: info @ fecs.be www.fecs.be

## EVENTS

Date	Name of Meeting	Place	Secretariat
<b>December</b>			
6-10	44th Annual Meeting of the American Society of Haematology (ASH)	Pennsylvania USA	American Society of Haematology Washington, DC, USA Fax: +1 202 857 1164 Email: ASH @ haematology.org www.haemaotology
8-11	18th World Congress of Digestive Surgery	Hong Kong China  Centre	Congress Secretariat 18th World Congress of Digestive Surgery C/- Department of Surgery University of Hong Kong Medical Queen Mary Hospital Hong Kong Ph: 852 2818-0232/052 2855 4235 Fax: 852 2818 1186 Email: isdshk @ hkucc.hku.hk
11-14	25th San Antonio Breast Symposium	San Antonio Texas USA	L Dunnington San Antonio Cancer Therapy and Research Centre San Antonio, Texas, USA Fax: +1 210 949 5009 Email: idunning @ saci.org www.sabcs.saci.org.

### ACS SURGERY WEB SITE NOW ONLINE

In collaboration with the College, WebMD is pleased to announce the launch of its dedicated Web site for ACS Surgery: Principles & Practice, the only online, continuously updated surgical information system for practicing surgeons. This Web site is available to ACS Surgery subscribers worldwide and can be accessed at <http://www.acssurgery.com>. Subscribers to the annual bound volume or quarterly CD-ROM version of ACS Surgery can access the full text online, including the latest monthly updates. To establish a user ID and password, subscribers will need their 9-digit account number, which can be obtained by calling 800-545-0554 or 914-962-4559 (outside the US), by faxing to 914-962-5076, or by e-mailing [samed@dwcweb.net](mailto:samed@dwcweb.net). Nonsubscribers will find more information about ACS Surgery: Principles & Practice, including a secure ordering mechanism, at <http://www.acssurgery.com/learnmore.htm>(.)

### IASO Program at Ooty : 20-22 September 2002

Time & date	M	SN	Title of Paper	Name of Authors	Address
<b>Session 1</b> 20-9-02 0800	P	1-30	<b>Judges:</b> Dr. RI Dave, Dr. K Gopinath, Dr. Arun Chaturvedi, Dr. L Sarangi (Three prizes= Rupees 2000)		
	P	1.	A Study of Response of Primary Tumor to Neoadjuvant Chemotherapy in Locally advanced Carcinoma Breast	Ashley Solomon, C D Kadambari, K Srinivasan, K S Reddy, D Basu, Elangovan	Pondicherry
	P	2.	Retrospective analysis of 20 cases of GIST in Cancer Institute	B. Balaji	Chennai
	P	3.	Tamoxifen Induced Atypical Endometrial changes (Local Experience)	Veena Jain/Satish Jain, R. Vashistha, R. Arora, Poonam, Rastogi, Seema Sharma, Nidhi Aggarwal, Sandeep Ka	Ludhiana
	P	4.	Cancer of Laryngopharynx: Results of treatment - Surgical oncology clinic serving rural population.	Sunil Saini, Manu Vasudeo, Hari Singh	Dehra
	P	5.	Primary Squamous Cell Carcinoma of Rectum- A Case Report	S R Krishnamurthy Nandhini	Coimbatore
	P	6.	Malignant Phylloides Tumor	M Narayanan Manoj Pandey, Aelyan Mathew, Jayasree Kattoor, Elizabeth Abraham, Beela S Mathew, Balakrishna Rajan, Krishnan M Nair	Thiruvananthapuram
	P	7.	Phylloides Tumour - 5 years experience in Cancer Institute	B Satheesan	Chennai
	P	8.	Malignant Melanoma Presenting as Secondaries in Parotid Gland	Tariq Mansoor	Aligarh
	P	9.	Role of Endoluminal Stents in Malignant Large Bowel Obstruction: a Systematic Review	S. Easwaramoorthy	Ernakulam
	P	10.	Role of Neoadjuvant Chemotherapy in Management of Rhabdomyosarcoma	Vinod Malik R. K. Karwasara	Rohatki
	P	11.	Early Gastric Cancer- Is it uncommon in Indian Subcontinent?	Geeta Shetty G. Suryanarayana Raju	Hyderabad
	P	12.	Sweat Gland Adenocarcinoma- A Clinico Pathological Dilemma	Chinta Mani, Vinay Singhal, B Rohini, V Bhushan, S Saxena, A N Sinha	Durgam
	P	13.	Tumours of Sinonasal Tract- A Retrospective Analysis of 74 Cases	B Satheesan	Chennai
	P	14.	Retroperitoneal Tumor- A Rare Preoperative presentation	G Venkatesan N Manivannan, S Ramu Joyce Prabakaran, L Senthilkumar, R. Senthilkumar	Thanjavur
	P	15.	Cancer of Gall Bladder in Uttaranchal state.	Anurag Gupta Sunil Saini, Manu Vasudeo	Dehra
	P	16.	Extra Adrenal Pheochromocytoma- An Asymptomatic Retroperitoneal Mass	Sanjeev Prasad RK Karwasra, Sushil Mangla, Rohit K. Goel	Rohatki
	P	17.	How Valuable is "Sentinel Node Biopsy in our setup for Breast Cancer"	S R Krishnamurthy Babu	Coimbatore
	P	18.	Carcinoma gall bladder with neck node metastasis- a case report	Padmalaya Devi S. Samantray	Cuttack
	P	19.	Colostomy Site Recurrence of Adenocarcinoma of the Rectum Following Abdomino-Perineal Resection in the Absence of any Local Recurrence : A Rare Case report with review of Literature	Chintamani, Vinay Singhal, Ashok Arya, A N Sinha	Durgam
	P	20.	Spontaneous Enterocutaneous Fistula 25 Years Following Radiotherapy in a Patient with Carcinoma Penis	Chintamani, Vinay Singhal, D Bhatnagar, A N Sinha	Durgam

	P	21.	Surgical Management: Cancer Oesophagus (Experience of a single team)	Sunil Saini, Anurag Gupta, Hari Singh	Dehradun
	P	22.	Ovarian Teratoma Presenting as Enterocutaneous- a rare case report	Vinod Malik, R. K. Karwasara, Sushil Mangla, S. Prashad	Rohtak
	P	23.	Primary leiomyosarcoma arising from the peritoneum: A case report	Vimal Kumar Govindan, Satish Kumar, Mahendran	Coimbatore
	P	24.	Spontaneous Regression of Medullary Carcinoma	Rajesh Godara, RK Karwasra	Rohtak
	P	25.	Extra Renal Retroperitoneal Angiomyolipoma	Malik Renuka Bansal, Thakur VK, Khurana Nita	Delhi
	P	26.	Cutaneous Metastasis in a Case of Carinoma Head of Pancreas- A Rare Case Report	Karanjit Singh, Vimal Bhandari, H. G. Vyas, R Chaudhury	Delhi
	P	27.	Cu/Zn ratio in patients with benign and malignant diseases of the Gall bladder	SK Gupta	Varanasi
	P	28.	3 Cases of Breast Conserving Surgery- Case Report	G Sivakumar, A Suresh Venkatachalam	Coimbatore
	P	29.	Radical Gastrectomy- Technical details	Nityasha, R K Karwasra	Rohtak
	P	30.	Major Liver Resections for Hepatoblastoma in Infants & Children	S P Somashekhar, Raj Shah, D D Patel, P M Shah	Ahmedabad
<b>Session 2</b> 20-9-02 0830-0900	T	31.	<b>Chairpersons:</b> JV Hardikar, S. Ayyappan, <b>Topic :</b> Salivary Gland Tumors <b>Speaker :</b> S Sadasivam	S Sadasivam	
<b>Session 3</b> 20-9-02 0900-1100	S	32.	<b>Symposium:</b> Conservatism in Surgical Oncology (1) Mandible Preserving in Oral Cancer (2) Breast Preserving in Ca. Breast (3) Rectum and Nerve Preservation in Ca. Rectum (4) Limb Preservation in Bone Tumors (5) Summing Up (6) Question - Answer	Convenor: RI Dave  (1) R. Deo (2) HS Shukla (3) R. Tankshali (4) M. Natarajan (5) Ravi Kant (6) Audience Participation Ahmedabad Bangalore Varanasi Ahmedabad Chennai Delhi	
11-1130	F		Tea	Tea	Tea
<b>Session 4</b> 20-9-02 1130-1150	I	33.	<b>Chairpersons:</b> NC Misra, VK Shukla <b>Topic:</b> Radical Cholecystectomy <b>Speaker:</b> K K Pandey	K K Pandey	
<b>Session 5</b> 20-9-02 1200-1230	I	34.	<b>Chairpersons:</b> HS Shukla, HG Vyas <b>Topic:</b> Evaluation of operative procedures for Gallbladder carcinoma. <b>Speaker:</b> K Tsuruta	K Tsuruta,	Japan
<b>Session 6</b> 20-9-02	I	35.	Radha Devi Oration Chairpersons: RI Dave, Ravi Kant Topic: Management of Oral Cancer : Speaker: K Panda	K Panda	
20-9-02 1300-1400	F		Lunch	Lunch	Lunch
<b>Session 7</b> 20-9-02 1400-1600	C	36-44	I Competition Section: Free Paper session 20-9-02 1400-1600 <b>Chairpersons:</b> KC Janardhan, <b>Judges:</b> RI Dave, Ravi Kant, L Sarangi		
	C	35.	The Role of Tumor Suppressor Gene and Estrogen Receptor Status of Breast Cancer and its Association With Clinical and Histological Parameters	M Anuj , Chintamani, Vinay Singhal, R S Mohil, V Bhandari, M K Mittal, S Saxena, D Bhatnagar	Delhi

	C	37.	Dietary Factors in Carcinoma of the Gallbladder	V S Chauhan, M Pandey, V K Shukla Varana
	C	38.	Mutation profile of the BRCA1, BRCA2 and p53 Genes in Indian Breast and Ovarian Cancers	Vishal Gupta, Ravi Kant, B C Das, P N Agarwal, Reva Tripathi Del
	C	39.	Outcome of Groin Dissection for Carcinoma Penis	Durgatosh Pandey Chenn
	C	40.	Expression of bcl-2 and p53 Oncogenes in Breast Cancer and its Correlation with Clinico-pathological Parameters.	Karanjit Singh, R K Chehara, Vimal Bhandari, Ajit Sinha, R Chaudhury Del
	C	41.	Role of Apoptotic Markers in Assessing the Response to Neo-adjuvant Chemotherapy and its Association with Clinical Parameters in Carcinoma Breast	Vinay Singhal, Chintamani, S V Arya, S Saxena, A N Sinha Del
	C	42.	Gingivo-Buccal Cancers: An Overview	K A Pathak, S Gupta, V Khanna, V D Sanghvi Mumb
	C	43.	Inflammatory Tracheo - Esophageal adhesions during Trans Hiatal Esophagectomy - Incidence and Management	S V S Deo, N K Shukla, D Sridhar Del
	C	44.	Role of Extended Sentinel Lymph node dissection in Cancer Genitalia	A Suresh Venkatachalam Coimbat
1600-1630	F		Tea	Tea
1630	E		Inaugural Function:	
20-09-02 2000	F		Dinner	
<b>Session 8</b> Saturday 21-9-02 830-900	I	45.	<b>Chairpersons:</b> Satish Jain, NS Vohra <b>Topic:</b> Treatment of Pancreatic cancer <b>Speaker:</b> K Tsuruta	K Tsuruta
<b>Session 9</b> 21-9-02 900-1100	S	46.	<b>Symposium:</b> Management of Cancer in elderly (1) Will Biology of Cancer changes with age (2) Evaluation of Elderly Cancer patients. (3) How much to do in Surgery (4) Adjuvant therapy - to do or not to do (5) Is Surgery necessary for hormone dependent cancer (6) Ethics, Law & Treatment of Cancer in Elderly (7) Concluding Remarks : Chairman	K Gopinath (1) ? (2) Mazumdar (3) Gunasagan (4) M. Vijayakumar (5) Hemant B. Tongaonkar (6) B. S. Ramesh (7) K Gopinath Bangalore Kolkata Chennai Bangalore Mumbai Bangalore Bangalore
21-9-02 1100-1130	F		Tea	Tea
<b>Session 10</b> 21-9-02 1130-1200	I	47.	<b>Chairpersons:</b> Srikumari Damodaran, BKC Mohanprasad, <b>Topic:</b> Hepatectomy with Glissonean pedicle transection method <b>Speaker:</b> K Tsuruta	K Tsuruta
<b>Session 11</b> 21-9-02 1200-1230	I	48.	<b>Motibhai Oration:</b> <b>Chairpersons:</b> P Subhas, Kiran Kothari, Jacob Kurien, <b>Topic:</b> <b>Speaker:</b> D Weaver	Donald Weaver, USA
<b>Session 12</b> 21-9-02 1230-1300	I	49.	<b>Dr. NC Misra Oration</b> <b>Chairpersons:</b> K Panda, Rajan Santosham, Introduction by Ravi Kant <b>Topic:</b> Advances in robotic and laparoscopic surgery : applications for complex oncologic abdominal surgery. <b>Speaker:</b> Dilip Parekh, (USA)	Dilip Parekh, (USA)
21-9-02 1300-1400	F		Lunch	Lunch

Session 13 21-9-02 1400-1415	T	50.	<b>Chairpersons:</b> KP Arunkumar,SM Chandramohan <b>Topic:</b> Delay in cancer treatment <b>Speaker:</b> R Karwasra	R Karwasra
Session 14 21-9-02 1415-1430	T	51.	Upper Bucco-gingival Sulcus (UBS) Tumor (Is Upper Alveolectomy enough?)	A. K. Dewan , Sandeep Mehta, Pankaj Pande Delhi
Session 15 21-9-02 1430-1450	T	52.	<b>Chairpersons:</b> Jothiramalingam,Kalyanasundaram, <b>Topic:</b> Medullary Carcinoma Thyroid <b>Speaker:</b> N Dorairajan	N Dorairajan
Session 16 21-9-02 1500-1520	T	53.	<b>Chairpersons:</b> Suresh Venkitachalam, A.Abdul Jalleel <b>Topic:</b> Stop Cancer in its track: recent advances in molecular prevention of cancer <b>Speaker:</b> Manoj Pandey	Manoj Pandey
Session 17 21-9-02 1530-1600	Q	54.	<b>Chairpersons:</b> S.R.Krishnamurthy, Venkatesan, <b>Quiz:</b> Somesh Chandra	Quiz
1600-1630	F		Tea	Tea Tea
21-9-02 1600-1700	E		Executive Meeting (All past presidents and presnt executive members are invited)	Executive Meeting
Session 18 21-9-02 1630-1830		55-67	<b>II-Free Papers: Hall A:</b>	
	O	55.	<b>Chairpersons:</b> R Jeyasingh; Chinta Mani, Locally Advanced Breast Cancer (LABC)- Problems of Multimodality Management in India	G Srinivas S V S Deo, N K Shukla, Manisha Bhutani, V Raina, G K Rath Delhi
	O	56.	Is Transhiatal Oesophagectomy Really Less Morbid? A M Patel, C R Shroff	S P SomashekharS V Shah, Ahmedabad
	O	57.	Radical Penectomy - The Role of TFL Flap to Reduce Lymphorrhoea and Help in Better Wound Healing - Our 8 year Experience	M RamalingamM G Pai, S R Krishnamoorthy, C N Ramasamy, Raja Coimbatore
	O	58.	Management of Colorectal Carcinoma	V D Swaminadan S T Sivakumaran Chennai
	O	59.	Salivary gland tumours: In an Eastern State of Indian Population	Amitabh Singh Deepak Kumar Patna
	O	60.	Radical Neck Dissection- A Series of 45 Cases	Satish Kumar DalalR K Karwasra Rohtak
	O	61.	Primary Surgery Vs Interval Debulking Surgery in Advanced Ovarian Cancer	Rupali Dewan, A K Dewan, S K Rawal Delhi
	O	62.	FLEP and Surgery in treatment of Locoregionally advanced Carcinoma of Stomach - An Innovative Approach	G.Suryanarayana Raju, D. Raghunadha Rao Hyderabad
	O	63.	Experience with Conservative Surgery in early Breast Cancer over the last 10 years in Northern India	Satish JainVeena Jain, Tejinder Singh, Rajesh Vashistha,Seema, Nidhi, Poonam, Sandeep Jhanjee, Raman Arora, Kamlesh Passi Ludhiana
	O	64.	Pylorus Preseving Pancreatico Duodenectomy and Pancreaticogastrostomy for Periampullary Carcinoma or Carcinoma Head of Pancreas - A Surgical Experience	Pawan Gupta G.Suryanarayana Raju Hyderabad
	O	65.	Diagnosis and Management of Cancer Penis in Clinically No Stage	Shailesh PatelH K Shukla, Rajen Tankshali, R I Dave Ahmedabad
	O	66.	Invasive Myasthenic Thymoma - A single Centre Experience	Robbie K GeorgeN Singh, A Agarwal, G. Agarwal, S K Mishra Lucknow
	O	67.	Complete Axillary Conversion After neoadjuvant chemotherapy in LABC - A Step Towards Conserving Axilla?	A ArivazhaganD Kadambari,K Srinivasan, R Krishan, Elangovan, K S N Reddy Pondicherry
Session 18 21-9-02 Hall B 1630-1830		68-76	<b>Video: session : Hall B</b> <b>Chairpersons:</b> Sunil Saini, Vimal Bhandari,	

	V	68.	Laparoscopic Pylorus preserving pancreatoduodenectomy	C.Palanivelu, Parthasarathy
	V	69.	Laparoscopic APR for CA Rectum	C. Palanivelu, Rajan
	V	70.	Thoraco-laparoscopic esophagectomy for CA Esophagus	C.Palanivelu, K.Senthilkumar, Coimbatore
	V	71.	Laparoscopic Radical Nephrectomy	M RamalingamK Selvarajan, M G Pai Coimbatore
	V	72.	A New Technique of Breast Reconstruction using Spin Sparing Mastectomy and TRAM Flap	S V S DeoN K Shukla Delhi
	V	73.	Orthotopic Neobladder in Women Following Radical Cystectomy- Does it Alter the Oncologic Principles and Continence?	M RamalingamM G Pai, K. Senthil Coimbatore
	V	74.	Modified Radical Prostatectomy for Early Carcinoma Prostate	M RamalingamM G Pai Coimbatore
	V	75.	New Technique of Mastectomy -100 Cases of Mastectomy	S R Krishnamurthy, Nandhini Krishnamurthy Coimbatore
	V	76.	Cosmetic Hemimandibulectomy	S R Krishnamurthy, Nandhini Krishnamurthy Coimbatore
<b>Session 20</b> Sunday 22-9-02 T 0830-0900		77.	<b>Chairpersons:</b> KS Ramalingam, VP Shanmugasundaram <b>Topic:</b> Anatomical and applied considerations in Hepatic resection <b>Speaker:</b> P Jagannath	P Jagannath
<b>Session 21</b> Sunday 22-09-02 0900-1100	S	78.	<b>Symposium on Predictive factors in Oncology</b> (1) Opening remarks and an overview (2) Role of the pathologist (3) Advances in Molecular Biology (4) Predicting Oral Cancer (5) Predicting Breast Cancer (6) Predicting G.I. Cancers (7) Risk stratification - 'stat-bite' & Concluding remarks	Convenor: Arun Chaturvedi (1)Arun Chaturvedi, (2) A. Borges, (3) N. Hussain, (4) KA Pathak, (5) Somesh Chandra, (6) SVS Deo, (7) A Chaturvedi, Lucknow Mumbai Lucknow Mumbai Ahmedabad New Delhi Lucknow
22-09-02 1100-1130	F		Tea	Tea Tea
<b>Session 22</b> 22-9-02 1130-1200	I	79.	<b>Chairpersons:</b> C Palanivelu, Saraparajan, <b>Topic:</b> Current Trends in laparoscopic colectomy in Japan <b>Speaker:</b> Masaki Fukunaga	Masaki Fukunaga, Japan
<b>Session 23</b> 22-9-02 1200-1230	I	80.	<b>Chairpersons:</b> P.C.Raju, Indiraraju, <b>Topic:</b> Laparoscopic Colectomy: Its Applications, Controversies and the Future Directions- perspective from USA <b>Speaker:</b> Barun A. Mukherji,	Barun A. Mukherji, USA
<b>Session 24</b> 22-09-02 1230-1330		80-86	<b>IV- Free Paper Session-Hall-A</b> <b>Chairpersons:</b> KA Pathak, Sarat Chand Bhas	
	O	81.	Nasolabial Flap in oral Reconstruction	Sandeep MehtaA K Dewan Delhi
	O	82.	Outcome after Single Stage Subtotal Colectomy for Carcinoma Colon: A Prospective Study	S. Easwaramoorthy Erode
	O	83.	40 year Analysis of Soft Tissue Sarcoma At Cancer Institute (Adyar)	S. Ayyappan Chennai
	O	84.	Surgical Experience in Carcinoma Esophagus in 116 Patients at Oswal Hospital	Nidhi Aggarwal/ Satish Jain, Tejinder Singh Seema, V. Tiku, A Singh Ludhiana
	O	85.	Breast conservative Treatment For Malignant Neoplasms of Breast	J V B Prasadm, G.Suryanarayana Raju Hyderabad
	O	86.	Surgery and Isolated limb Perfusion in Management of Malignant Melanomas of Exremities - an Experience	G. Suryanarayana Raju, Yousuf Memon, Raghunadha Rao Hyderabad
	O	87.	Is Complete axillary clearance with total mastectomy is the choicest operation for Indian rural/poor population	Amitabh SinghDeepak Kumar Patna
1330	F		Valedictory Function and Lunch	

**Form for membership change of address of Indian Association of Surgical Oncology (IASO)**  
(The Oncology Section of Association of Surgeons of India)

To  
The Secretary,  
Indian Association of Surgical Oncology (IASO)  
(The Oncology Section of Association of Surgeons of India)  
DII-68, Kaka Nagar, New Delhi-110003

Sir,

1. I wish to become member of Indian Association of Surgical Oncology (IASO) (The Oncology Section of Association of Surgeons of India). I enclose Rs 1100=00 (Eleven hundred only) by cheque / draft/ cash, number \_\_\_\_\_ dated \_\_\_\_\_ drawn on \_\_\_\_\_ Bank, payable at Delhi. Enclosed Details as per para 1 to 6 .

OR

2. I am an existing member of IASO. My changed address (Enclose details para 1 to 4 only) are as following -

Signature of applicant \_\_\_\_\_ Date of application \_\_\_\_\_ Photograph (passport or stamp size)

**DETAILS:**

1.1 First name \_\_\_\_\_ 1.2 Middle Name \_\_\_\_\_ 1.3 Last name \_\_\_\_\_

2.1 ASI number: \_\_\_\_\_ 2.2 IASO number \_\_\_\_\_

3.1 Present address, including pin code \_\_\_\_\_

3.2 Present Institution / Place of work /Clinic \_\_\_\_\_

3.3 Institutional address, including pin code \_\_\_\_\_

3.4 Preferred mailing address: Residence / Work ( Please encircle one option). \_\_\_\_\_

3.5 Permanent address, including pin code \_\_\_\_\_

4.1 Telephone-R (PI write STD code) \_\_\_\_\_

4.2 Telephone-W \_\_\_\_\_

4.3 Fax \_\_\_\_\_ 4.4 Mobile \_\_\_\_\_

4.5 Email- \_\_\_\_\_

4.6 Personal Website \_\_\_\_\_

5.1 Percentage of Oncology work \_\_\_\_\_

5.2 Research in Oncology \_\_\_\_\_

5.3 Educational qualification \_\_\_\_\_

5.4 MCI number \_\_\_\_\_

5.4 Experience- details attached \_\_\_\_\_

5.3 Papers published = \_\_\_\_\_ and presented (List only the number of publications and presentations above and attach a separate sheet with details.)

6.1 Name of proposer \_\_\_\_\_ ASI number \_\_\_\_\_ Signature of Proposer \_\_\_\_\_

6.2 Name of Seconder \_\_\_\_\_ ASI number \_\_\_\_\_ Signature of Seconder \_\_\_\_\_

\_\_\_\_\_ Comments by Secretary: Accepted/ not accepted . Date of approval by Executive Committee

Date of approval by GBM

Signature of Secretary

Clinical Reference

Issue No. 2

*Management  
of life threatening  
conditions . . .*

**For**gen

So Potent... Bacteria can never survive