



**AONEI NEWSLETTER  
DARPAN—A reflection of  
AONEI activities**

**Volume 1, Issue 6**

Cover Photo: Umshiang River, Nongriat, Meghalaya  
(PC: Mebalapynhun Shylla)



# **AONEI NEWSLETTER**

## **DARPAN—A reflection of AONEI activities**

### **Editor's Notes**

It's my pleasure to greet you all through the 6<sup>th</sup> issue of this newsletter. The Northeast Region of India is gaining importance and we need to enable the improvement of healthcare in this region. With the National Health Policy, there is greater focus on wellness. We as an association and as individuals need to raise awareness regarding carcinogens such as tobacco, betel nut and alcohol which account for several cancers in Northeast India.

The purpose of this newsletter is to inform all our members of the activities of the association.

In 2020, we had our annual meeting at Shillong in February and one mid-term CME on Thyroid Cancer in Itanagar in 2021. The annual conferences of 2021 and 2022 were virtual events. The reports and pictures of these events are published in this issue. Special thanks to Dr. Fine One Laloo and Mr. Mebalapynhun Shylla for the creativity displayed in designing this newsletter.

Caleb Harris

Editor and website in-charge

Associate Prof. Surgical Oncology,  
NEIGRIHMS, Shillong

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### **INSIDE THIS ISSUE**

- President's Letter
- Secretary's Report
- Reports
- Incidental gallbladder cancers – Evolving Management Paradigm
- Approach to Lymph Node Irradiation in Breast Cancer
- Role of The Pathologist in the Management of Carcinoma Rectum
- An Interesting case of Angiomyolipoma presenting with Flank Pain
- A Case Report of Ampullary Adenocarcinoma
- Insight into the management of Vulvar Paget's disease: A recurring menace
- Conference Abstracts



## President's Letter



Dr. C Bhuyan  
President,  
Association of Oncologists of North East India.

My dear friends,

We have gone a year round and is getting together again for the Annual conference of our Association on 28th to 30th of January 2022. COVID played havoc world over and we North Easterners were not spared. Cancer patients suffered a lot as many of them faced treatment disruptions due to COVID related logistic and medical issues. During this trying time, most of you have kept the service available even by helping on telephonic or telemedicine. It was tremendous pressure on each one of you to keep the service flowing. Many of you also got COVID infected and physically suffered. I salute each one of you for your spirit of service to humanity.

Because of the same issue, the activities of the Association also suffered. In spite of all odds, some of our brave members have kept the flag of AONEI flying. I must specially mention the effort of Dr. Gayatri Gogoi who took initiative to arrange Cancer Awareness meetings at Tinsukia, Dibrugarh, Morigaon and Jorhat districts. It is heartening to see how closely AONEI and PRATISHRUTI worked in this aspect. Dr Arup Roy Barman did some activities. We had a fruitful physical meeting (CME) on thyroid Cancer at Naharlagun, organised at short notice by Dr. Rubu Sunku and the entire team at Arunachal Pradesh.

So the spirit is not down but is challenged by the COVID situation.

We must rejuvenate ourselves because we have to go on - In our lives and also for the lives that we serve.

My best wishes for next meetings.

Hope you all join as per schedule and make it a success.



## Secretary's Report



Dr. Vikas Jagtap  
Secretary AONEI  
Associate. Professor & Head  
Deputy Medical Superintendent  
Radiation Oncology, NEIGRIHMS, Shillong

Dear All

Greeting from AONEI !!!

Here we are, starting another calendar year and as we prepare for the possibility of meeting again with academic and cancer awareness activities, I and the rest of the committee members hope that everyone is healthy and upright. Last year we could not publish a newsletter due to covid pandemic. It is a little longer and I hope future editions will be on time.

In last two years, AONEI has done various academic and cancer awareness activities including webinars and cancer awareness programs. AONEI also held hands with other organizations including Medanta Hospital, Delhi and Pratishruti trust taking the steps in spreading knowledge and cancer awareness in North east India. In last two years the following activities were conducted by AONEI with active lead from esteemed members of the association,

1. Webinar GI Cancer 10<sup>th</sup> October 2020
2. Webinar Head & Neck Cancer 31<sup>st</sup> October 2020
3. 16<sup>th</sup> Annual Conference 2021 – Virtual Conference 19<sup>th</sup> – 20<sup>th</sup> March 2021
4. State Level Cancer Awareness Campaign at Gaon Panchayat, Jokai Dibrugarh on 24<sup>th</sup> Oct 2021
5. Awareness Program on Cancer & Palliative Care – IQAC, Morigaon College – 30<sup>th</sup> Oct 2021
6. An Awareness meeting was held in No 9 Boloma Gaon Panchayat, Teok on 9<sup>th</sup> November 2021
7. Mid-term CME Thyroid Cancer Naharlagun (Arunachal Pradesh) 11<sup>th</sup> Dec 2021
8. 17<sup>th</sup> Annual Conference 2022 – Virtual Conference 27<sup>th</sup> – 29<sup>th</sup> Jan 2022

AONEI has achieved remarkable growth over the past few years. AONEI with its 137 members look forward to creating a lasting organization with your help and support. We have arranged various academic activities this year and hope we all meet again soon.



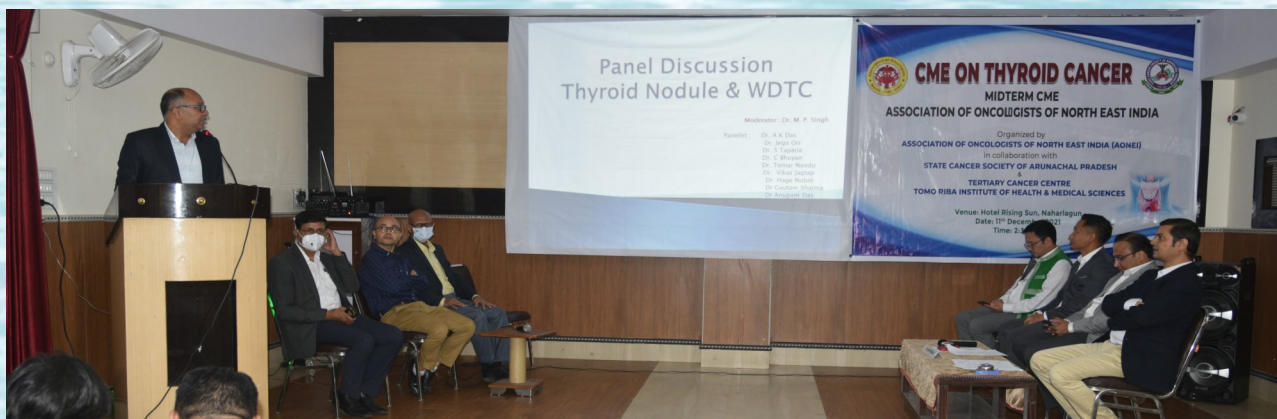


# CONFERENCE REPORTS



# Continuing Medical Education (CME) on Thyroid Cancer

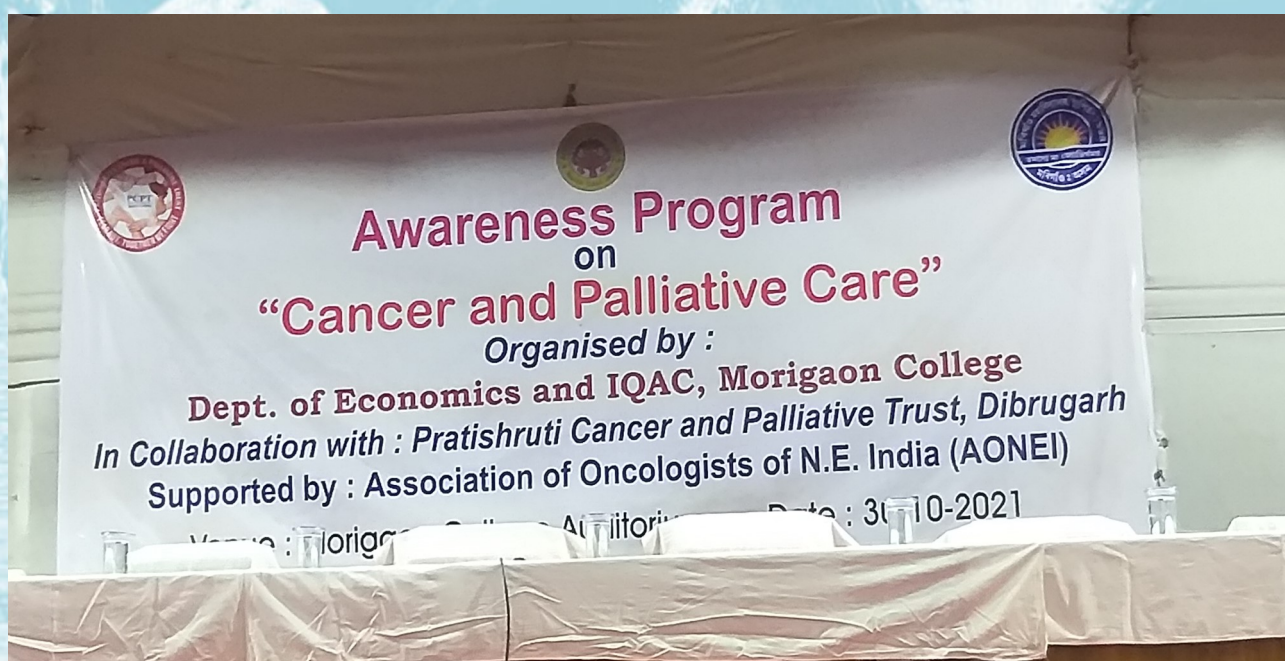
Papum Pare District of Arunachal Pradesh records the highest incidence of Thyroid Cancer in the country among females as per report by National Cancer Registry Program, Indian Council of Medical Research (NCRP-ICMR). Keeping the growing incidence in mind, a Midterm Continuing Medical Education (CME) programme on Thyroid Cancer under the banner of Association of Oncologists of North East India (AONEI) was organised here in Naharlagun on 11th December 2021. The Event was organised by Association of Oncologists of North East India (AONEI) in collaboration with State Cancer Society of Arunachal Pradesh and Tertiary Cancer Centre, Tomo Riba Institute of Health & Medical Sciences (TRIHMS). The event saw participation of expert in Oncology from various regions of North East India. It was inaugurated with address from State Nodal Officer for Cancer Control Programme cum Organising Chairman Dr. S. Tsering, President AONEI Dr. C. Bhuyan, Senior Medical Oncologist from Guwahati and Secretary AONEI Dr. Vikas Jagtap, Associate Professor cum Head, Radiation Oncology from NEIGHRIMS, Shillong. The Head and Neck Oncologist Professor Dr. Ashok K Das of Dr. B. Borooah Cancer Institute Guwahati, Consultant Nuclear Medicine Dr. Sandeep Taparia from Health City Hospital, Dr. Jecho Ori, Assistant Professor Dept. of ENT and Dr. Hage Nobin, Assistant professor, Dept. of Pathology from TRIHMS, talked on various aspects of Thyroid Cancer Management. It was followed by Panel discussion by experts of various disciplines of cancer management on thyroid cancer, which was moderated by Dr. Mahamaya Singh, Consultant Head and Neck Oncology and Reconstructive Surgery, North East Cancer Hospital and Research Institute, Guwahati. The event was concluded with vote of thanks from Organising Secretary Dr. Rubu Sunku.





## Morigaon Awareness Camp Report. 30 Oct 2021

On 30th October 2021, under the banner and support of AONEI, Pratishruti Cancer & Palliative Trust in association with the Department of Economics and IQAC (Morigaon College) organized an awareness programme on "CANCER AND PALLIATIVE CARE" at Morigaon College. The programme was conducted under the leadership of Dr. Gayatri Gogoi and the subject matter was deliberated upon by BBCI faculty and AONEI resource persons Dr. Gautam Sarma and Dr. Gaurav Das. While Dr. Gayatri Gogoi spoke about palliative care and services that can be availed by cancer patients, Dr. Gautam Sarma debunked several myths regarding radiation therapy and highlighted technical courses that can be pursued in health sector by students. Dr. Gaurav Das spoke about cancer prevention, screening and cancer care. Mrs. Barasha Rani Baishya graced the occasion as a guest and her popularity drew in a large audience. "Pratishruti Most Contributing Oncology Consultant Award 2021" was conferred upon Dr. Gaurav Das and special felicitation was presented to Ms. Kunjalata Medhi, a breast cancer survivor. The event met with success beyond expectations due to the earnest efforts from the organizing team at Morigaon College.





# Morigaon Awareness Camp Report. 30 Oct 2021





## State Level Cancer Awareness Campaign at Auditorium Gaon Panchayat Jokai Dibrugarh

The program was organized by Pratishruti Cancer and Palliative Trust & Swayam Project of IMA WDW in association with Jokai Provab Gusthi & Jokai Gaon Panchayat supported by Assam Medical College & Hospital, Association of Oncologist of NE India & Dibrugarh District Health Society on 24th October 2021.

A total number of 100 members were present in the State Level Cancer Awareness Campaign at Auditorium, Gaon Panchayat Jokai, Dibrugarh.

The welcome speech was delivered by Panna Bharali, Secretary, Pratishruti Cancer and Palliative Trust. The program was attended by the ANM, ASHA karmi and their Supervisor and also the local people of the village.

Dr. Gayatri Gogoi, Assistant Professor, AMCH & Honorary Program Director Of Pratishruti Cancer and Palliative Trust spoke about the Swayam Project of IMA and Breast Cancer.

Dr. Bipul Deka, Assistant Professor, Gynaecology and Obstetrics Department, AMCH, Dibrugarh delivered an eloquent speech on Cervical Cancer.

Dr. Ramesh Saharia, Consultant Surgical Oncologist spoke about oral cancer, represented Association of Oncologist of North East India.

On behalf of the IMA Dibrugarh Branch Dr. Santanu Lahkar, President, IMA, Dibrugarh addressed the gathering.

The Guests in the dias were Dipali Saikia, Vice President, Pratishruti Cancer and Palliative Trust, Dr. Santanu Lahkar, President, IMA, Dibrugarh, Purnanda Gogoi, President Gaon Panchayat Jokai, Rabin Sonowal, President Pravab Gusthi, Purnanda Gogoi, Dr. Pranay Phukan and Dr. Pranjal Dutta.

At last, the speech & vote of thanks was delivered by Deepali Saikia.





# State Level Cancer Awareness Campaign at Auditorium Gaon Panchayat Jokai Dibrugarh





## State Level Cancer Awareness Campaign at Auditorium Gaon Panchayat Jokai Dibrugarh



### Teok Awareness meeting

An Awareness meeting was held in No 9 Boloma Gaon Panchayat, Teok on 9th November, 2021 which was jointly organised by Nand Ghar (Vedanta), Pratishruti Cancer and Palliative Trust, Dibrugarh and Hindustan Latex Family Planning Promotion Trust in association with Association of Oncologists of NE India and Swayam Project of IMA WDW.

In the very beginning Panna Bharali, Secretary, Pratishruti Cancer and Palliative Trust spoke about the objective of Pratishruti Cancer and Palliative Trust and also about the call of the hour as why we need awareness and how we can fight against this deadly disease

Dr. Bihari Agarwal, Surgical Oncologist, Jorhat Medical College delivered his speech on Oral and Breast Cancer Awareness and Screening. Likewise Dr. Binoy Borah, Assistant Professor, O&G, Jorhat Medical College also delivered his speech explaining the need of Cervical Cancer Awareness and Screening.

Dr. G. S. Borgohain, Convenor Pratishruti Palliative Home Care Project explained the need of Palliative Care in Cancer care in his speech. In the meeting Dulumoni Kalita from Teok FRU was also present and delivered her speech about Cancer Awareness.

Pratishruti's Save Lives Ambassador popular actress of Assamese Cinema, Smti. Barasharani Bishoya was also present in the meeting and spoke about her experience with Pratishruti & how awareness can save lives of people.

The entire program was nicely arranged by one active volunteer of Pratishruti from Sivasingar, Sri Bhoirov Kumar Das.



## Guest Article

# Incidental gallbladder cancers – Evolving Management Paradigm



### Dr Shraddha Patkar

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In this era of laparoscopic surgery, incidental gallbladder cancers (iGBC) are now more commonly seen with the widespread use of laparoscopic cholecystectomy (1). Management of non-metastatic iGBC involves revision surgery with or without systemic therapy. This revision surgery in the context of multimodality treatment offers a chance for a potential cure in iGBC, although the therapeutic or survival benefit achieved by revision surgery has not been proved conclusively till date(2)(3). Expert consensus statement by Aloia et al advocates revision surgery for iGBC for stage Ib onwards unless contraindicated by advanced disease or a poor patient performance status(4).

Revision surgery entails wedge resection of the liver around the gallbladder fossa with peri-portal lymphadenectomy (stations 8,12,13). Extra hepatic biliary tract excision is done only in cases of a positive margin on the cystic duct. Routine port site or scar site excision though practiced previously is not recommended anymore due to lack of survival benefit and chances of port site herniation.

There is no consensus on the most optimum time of the revision surgery. Ethun et al advocate 4-8 weeks as the optimum time interval for revision surgery associated with superior oncological outcomes(5). Patkar et al have analysed the largest global series on iGBCs (n=517) and concluded that all patients should be offered revision surgery irrespective of the time of presentation provided they are non metastatic on restaging work up.(6).

In this series, patients operated between 10-14 weeks had relatively superior outcomes. However, the overall survival outcomes in iGBC were an attribute of the final stage of the disease and the presence of residual disease upon revision surgery. Authors have questioned the therapeutic impact of revision surgery and rather suggest its importance as the most accurate staging tool in the treatment schema.

At presentation, cross-sectional imaging using a CECT or a PET CECT is used to triage patients to the most appropriate treatment protocol. PET CECT can change the management in 38% patients by appropriate restaging, after 4 to 6 weeks allowing post-operative inflammatory changes to settle.

Goel et al have shown that with a negative predictive value of 77% and positive predictive value of 43%, PET CECT can help select patients potentially at a higher risk of metastases and thus would benefit from systemic therapy(8). With encouraging survival outcomes seen after the use of neo-adjuvant systemic therapy in locally advanced GBC, patients with non-metastatic iGBC with residual disease (in gallbladder fossa or peri-portal lymph nodes) on cross-sectional imaging now routinely receive systemic therapy prior to revision surgery at author's institute (9)(10)(11).



Patkar et al have shown that neoadjuvant systemic therapy improves the outcomes of this cohort of iGBCs(6). The results of the GAIN trial by Goetze et al are awaited to help triage iGBC patients into the most appropriate management strategy(12). The most appropriate treatment algorithm incorporating the various treatment modalities still awaits consen-

sus across the experts to significantly improve the outcomes in this deadly disease (13).

India, that accounts for a large majority of the global burden of iGBC needs enhanced referral patterns to tertiary care centres in order to improve the outcomes of iGBC.

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# Role of The Pathologist in the Management of Carcinoma Rectum

Dr. Yookarin Khonglah

Additional Professor, Department of Pathology, NEIGRIHMS

- For diagnostic, prognostic and predictive information
- For a good standardized reporting – Pathologist need information in requisition forms regarding type of surgical procedure, site of tumor, nature of neo-adjuvant therapy, preoperative histology, H/O familial cancer, H/O inflammatory bowel disease (dictates extent of sampling). All clinical information is transcribed to final histopathology report.

## GROSSING OF LOW ANTERIOR RESECTION SPECIMENS - pTNM

What do we look for?	Why?
Quality/Plane of the mesorectal excision and grading of excision	For completeness of resection – if not complete or evidence of perforation, there will be ↑rate of recurrence and ↓overall survival For Surgical audit
Site of tumor in relation to anterior peritoneal reflection – above, at or below	Rates of local recurrence are higher below level of anterior peritoneal reflection
Extent of lymphnode clearance (>12)	Prognostication and staging
Transverse cut sections through the tumor	For assessing depth of invasion and distance from circumferential resected margin (CRM) – for prognostication and staging

## MICROSCOPIC INFORMATION - pTNM

What do we look for?	Why?
Tumor sections for <ul style="list-style-type: none"> <li>– histologic type, tumor extension</li> <li>– tumor differentiation &amp; grade</li> <li>– margins involvement</li> <li>– lympho-vascular invasion – small or large intra/extramural invasion</li> <li>– peritumoral tumor budding at advancing edge of tumor</li> <li>– tumor deposits</li> </ul>	<ul style="list-style-type: none"> <li>– diagnostic and prognostic value</li> <li>– signet ring cell has independent adverse prognosis</li> <li>– involvement of CRM- ↑recur, ↓survival</li> <li>– extramural vascular invasion has independent prognostic value</li> <li>– high tumor budding in Stage II – may dictate chemotherapy(CT) decisions</li> <li>– tumor deposits &lt; or &gt;5 is reported as &gt;5 confers additional adverse prognosis</li> </ul>
Regional lymphnode metastasis in minimum 12 lymphnodes	Prognosis and staging. If <12 nodes dissected out even with the best grossing then adjuvant CT maybe considered.

## POST NEO ADJUVANT SPECIMENS - ypTNM

Same protocol as above, however, few differences:

- Tumor regression is graded only on primary tumor not on lymphnode metastasis
- Modified Ryans system is used – No viable cells=0 to extensive residual disease=3
- Lymphnode resection – may yield no lymphnodes or < 12 nodes



Modified Ryans system is used – No viable cells=0 to extensive residual disease=3  
Lymphnode resection – may yield no lymphnodes or < 12 nodes

**ANCILLARY TESTING** - Micro Satellite Instability (MSI) – indicate presence of defective DNA Mismatch Repair genes (MMR). MSI-High (MSI-H)- cancer with high MSI.

- MSI-H = favourable prognosis, but do not respond well to 5-FU, influence choice of CT
- MSI-H = identify patients who would benefit from PDL-1 immune checkpoint inhibitor
- BRAFV600E – if positive favors sporadic Colorectal cancer (rules out Lynch Syndrome)
- KRAS/NRAS – are negative predictors of benefit from anti EGFR therapy

References:

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## Approach to Lymph Node Irradiation in Breast Cancer

**Dr. Navin Nayan**

Assistant Professor, Department of Radiation Oncology, NEIGRIHMS, Shillong

Radiation therapy is an integral part of the multimodal management of breast cancer. Radiation provides a significant local control and long-term survival benefit in patients who undergo BCS and in those with locally advanced breast cancer (1, 2). The appropriate extent of radiation therapy volumes, and whether these should include regional lymph nodes, however, remains a topic of debate. Regional nodal irradiation (RNI) in breast cancer is the irradiation of the axillary, supraclavicular and/or internal mammary (regional) lymph nodes.

The primary objective of regional treatment for breast cancer, whether surgical or radiotherapy, should be to eradicate macro-/microscopic disease within the lymph nodes, reduce the risk of locoregional recurrence and distant metastases, and confer a survival benefit.

### **Indications for RT to regional lymph nodes:**

- N+ with extensive ECE
- +ve sentinel node/micro-metastasis (as an alternative to ALND)
- 4 or more node positive
- Inadequate axillary dissection

### **Regional Nodal Irradiation in Early Breast Cancer:**

Two trials evaluated the role of nodal irradiation in early breast cancer. Both MA.20 and EORTC2292-10925 evaluated the benefit of more extensive lymphatic treatment in patients with higher-risk lymph node - negative, or lower risk lymph node-positive disease. A meta-analysis of these two studies suggested that the addition of RNI to the level III axillary, supraclavicular and upper internal mammary lymph nodes conferred an improvement in DFS and distant metastasis free survival as well as a 1 – 2% OS advantage (3). Lymphedema and pulmonary toxicities were noted in both studies. Other studies have suggested that many patients with positive SLN who are treated with breast conservation including breast irradiation may safely avoid the morbidity and costs of further axillary treatment (whether surgical or radiotherapy-based).

In the majority of PMRT trials, the targets for RNI included the ipsilateral undissected axilla, the SCV, and the first 1-4 medial intercostal spaces where the IMC reside. There is a greater degree of controversy over the value of RNI for patients with less nodal burden

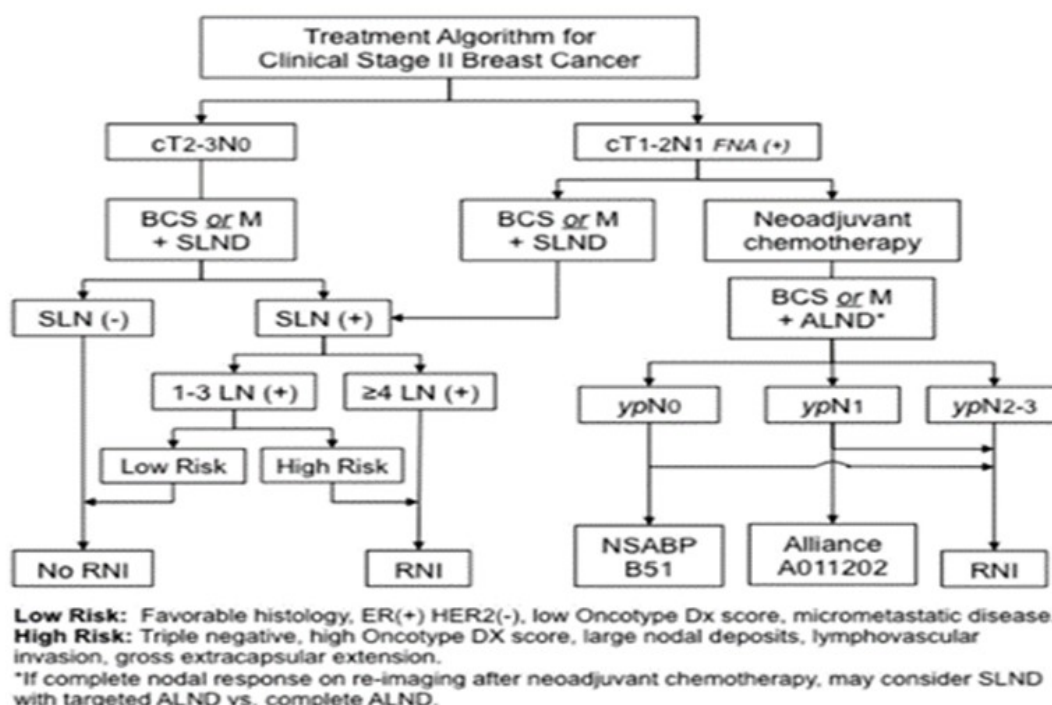


pN1) or high-risk pN0 disease. In addition, RNI has the potential to increase acute and late cardiopulmonary toxicity and lymphedema, especially after a complete ALND. The EORTC 10981-22023 AMAROS trial (AMAROS) revealed that axillary radiotherapy to levels I, II, and III after positive sentinel node biopsy provides excellent axillary control for patients with T1–2 primary breast cancer even when ALND is omitted (4).

### RNI after neo-adjuvant chemotherapy:

Overall, the standard of care for patients with cN1 disease at diagnosis with persistent disease after NCT includes comprehensive radiotherapy to the undissected regional lymphatics. However there is lack of certainty of how the effects of NCT will alter

the effects of RNI on loco-regional control and survival benefit. Alliance A011202 trial is randomizing patients who are SLN positive after NCT into axillary radiotherapy versus axillary lymph node dissection (RNI is permitted following the ALND in this arm). NSABP-B51 trial is randomizing patients with cT1-3N1, ypT0N0 breast cancer in to RNI based on extent of primary surgery (BCS with whole breast irradiation ± RNI vs. mastectomy ± PMRT). Result of these two studies may provide the better insight into nodal irradiation after neo-adjuvant chemotherapy in breast cancer. Figure 1, depicts the treatment algorithm for clinical stage II breast cancer.



### Target volume for regional nodal irradiation in breast cancer:

Radiation treatment to the regional nodes results in an improvement in survival in breast cancer according to a meta-analysis of randomized trials. However, different volumes were targeted in these studies: breast or chest wall only (WBI/CWI), inclusion of the medial supraclavicular region and axillary apex (MS+WBI/CWI) or additional inclusion of the internal mammary chain (IM+MS+WBI/CWI). Expanding the radiation field to the axillary apex and supraclavicular nodes after axillary node dissection reduced loco-regional recurrences without

improvement in overall and cancer-specific survival. A prolongation in survival due to regional nodal irradiation is achieved when the internal mammary chain is included. This derives from a reduction in distant metastasis (5).



### **RNI after BCS for Early HER2-Positive Breast Cancer:**

Trials demonstrating the benefit of RNI in reducing the recurrence in early breast cancer were conducted in the pre-trastuzumab era. Whether these results are applicable to HER-2 positive early breast cancer treated with anti-HER2 targeted therapy is unknown. Results of a sub-analysis from the ALTTO Trial where out of 1664 Her2 + breast cancer patients, 878 (52.8%) received RNI to the axillary, SCV and/or IMN nodes. At median follow up of 4.5 years, DFS was 84.3% in RNI group versus 88.3% in non RNI group. No difference was found in regional recurrence (0.9% vs 0.6%) or in OS (93.6% vs 95.3%). In conclusion, they suggests that RNI as administered in the ALTTO trial does not have statistically significant impact on DFS in node-positive, HER2-positive early breast cancer patients treated with BCS, ALND, and WBI, especially for patients with low lymph node burden, and that the rate of regional recurrence for this population is very low. In the era of modern systemic therapy of HER2-positive patients, analysis questions the need to systematically offer RNI to patients with HER2-positive, lymph node-positive disease (6).

### **Hypo-fractionated Nodal Irradiation for Breast Cancer:**

Hypo-fractionation for breast cancer radiotherapy is attracting considerable attention (7). Compared with conventional therapy, hypo-fractionation delivers a full course of treatment in fewer sessions, which may improve patient convenience and reduce treatment costs. There is a growing trend to extend the therapy's indication to RNI. Most experimental schedules were in the range of safe fractionation: 42.5 Gy in 16 fractions, 39 Gy in 13 fractions, 42.9 Gy in 13 fractions, 41.6 Gy in 13 fractions, 39 Gy 13 fractions, 40 Gy in 15 fractions, 30 Gy in 5 fractions, and 28.5 Gy in 5 fractions. However, assessments of lung-heart function are spars. And the use of different techniques may have confounded the real effect of fractionation. Until new clinical trials prospectively study OS and functional changes of critical organs, clinicians shall take caution from extending hypo-fractionation to RNI (8).

### **RNI in the Modern Era of Breast Cancer Management:**

Surgery has become progressively less invasive and data supporting a larger role and extent of RNI have grown. AMAROS trial and OTOASOR trial demonstrated that AXL-RT can be used as an alternative to cALND in node-positive patients, yielding extremely low rates of axillary recurrence and less morbidity than surgical resection (9,10). Nevertheless, concurrent surgical trials evaluating the omission of ALND in the absence of consistent RNI also reported excellent long-term outcomes (11). However, it is not clear that the value of RNI applies equally to all patient subsets.

### **St. Gallen/Vienna 2021:**

In the Consensus Discussion on Customizing Therapies for Women with Early Breast Cancer (12), RNI was declined for patients with TNBC or HER2-positive breast cancer with pathologically proven complete response (pCR) after neo-adjuvant therapy (89%), but considered mandatory (70%/65% always, 26%/30% in stage 3) in stage 2+ cN1 TNBC or HER2-positive breast cancer with pCR, respectively. The panel did not think that RNI was necessary with PMRT for TNBC (79% never) or luminal (95% never). Also, the panel was very clear that genomic signatures (Oncotype DX®, MammaPrint®, PROSIGNA®, etc.) cannot be used to help decide on RNI (92%) or omission of RT (84%).

### **Conclusions:**

MA 20 and EORTC 22922 concluded that nodal irradiation resulted in significantly improved DFS, less distant metastasis, reduced breast cancer related mortality and limited toxicity. However, the lack of a statistically significant OS benefit, and the increased risks of lymphedema, pneumonitis and cutaneous adverse events, the debate over the use of regional nodal irradiation is likely to continue. Regional radiation is more complex, time-consuming, and more expensive to deliver. The potential benefit of nodal irradiation might dependent on the extent of axillary-lymph-node dissection achieved and adjuvant chemotherapy. Therefore, rationale use of RNI is needed and this should be individualized.



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# An Interesting case of Angiomyolipoma presenting with Flank Pain

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## Aim:

To study a rare case of Angiomyolipoma presenting with flank pain.

## Introduction:

Angiomyolipoma is a mesenchymal tumour that belongs to the family of PEComa (Perivascular epithelioid cell tumour). It constitutes approximately 1% of surgically removed renal tumours that occurs sporadically or in patients with Tuberous Sclerosis. Angiomyolipomas are mostly an incidental finding in asymptomatic patients. This is a rare case of Angiomyolipoma presenting with flank pain.

## History:

A 35 years old, averagely built woman presented to the surgery OPD on November 2021 with sudden pain over the left flank since 2 days. The pain was spasmodic in type.

USG and CT scan was advised ,which shows a highly vascular mixed density mass lesion with areas of fat density involving the left kidney suggesting Angiomyolipoma.

Further the mass was resected and sent for histopathological examination.

## Roentgenological Findings

### USG

An ill define mass lesion measuring approximately 11 x7cm is noted in spleno renal region involving the upper pole of the left kidney

### CT Scan

Large highly vascular mixed density mass lesion with areas of fat density within measuring 4.9(AP)x6.39(TR)x6.89(CC) cm is seen involving the left kidney with an exophytic component .

Impression – Left renal angiomyolipoma

## Histopathological Findings:

### Gross:

A soft tissue specimen of the left kidney of size 12×7 cm.

Cut section shows a well circumscribed ,non-encapsulated mass of size 6×5 cm with a pushing border.

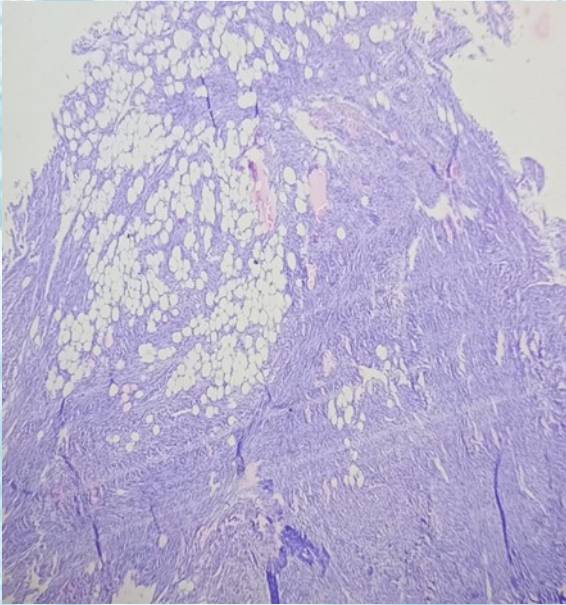
Cut surface shows a grey white tumour with yellow and red appearance at places.



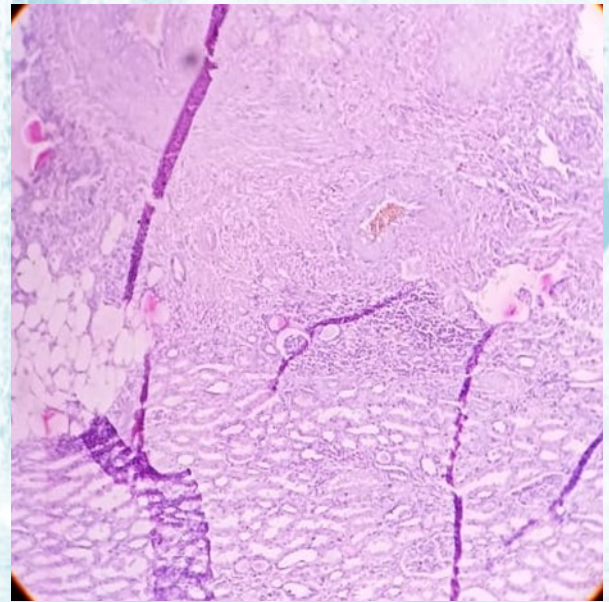


**Microscopical Findings:**

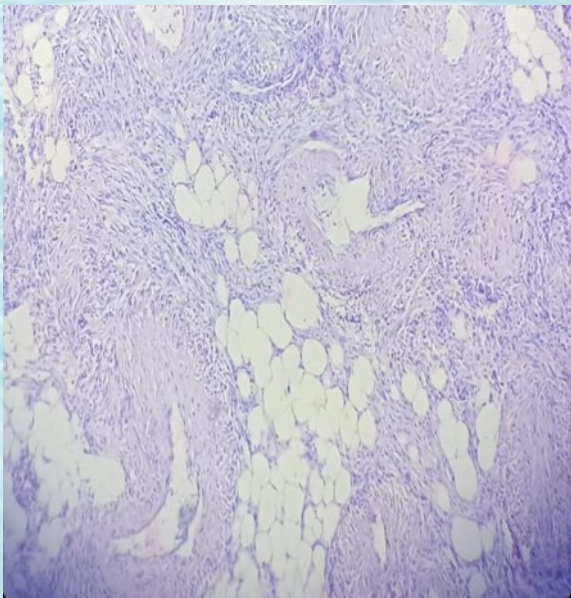
Section from the different areas of the mass shows presence of spindle cells, mature adipocytes and dysmorphic thick walled blood vessels. The spindle cells appear to originate from the vessel wall that are thick and hyalinized. The picture is consistent with Angiomyolipoma.



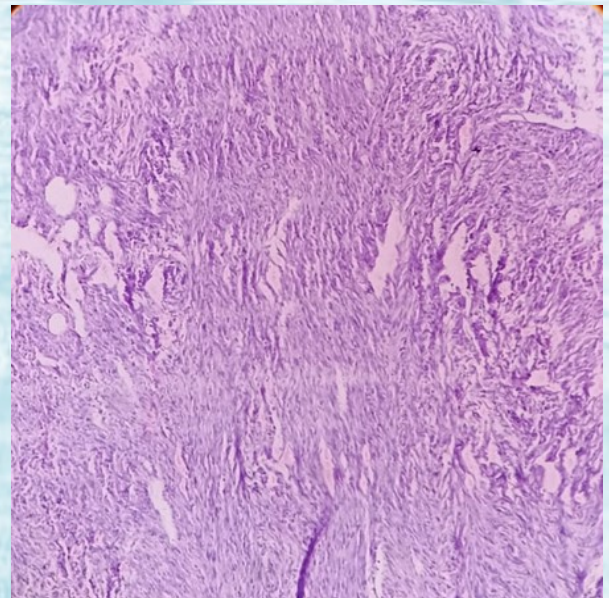
4x view



4x view



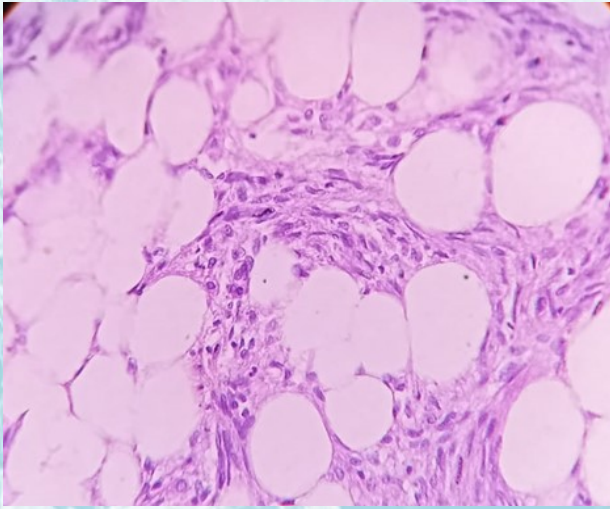
10x view



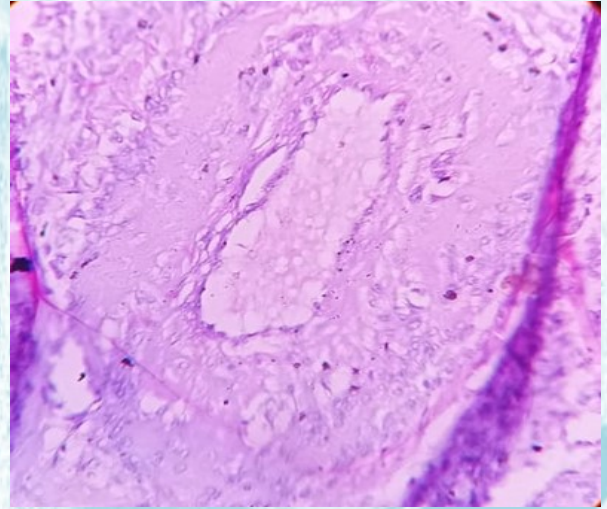
10x view



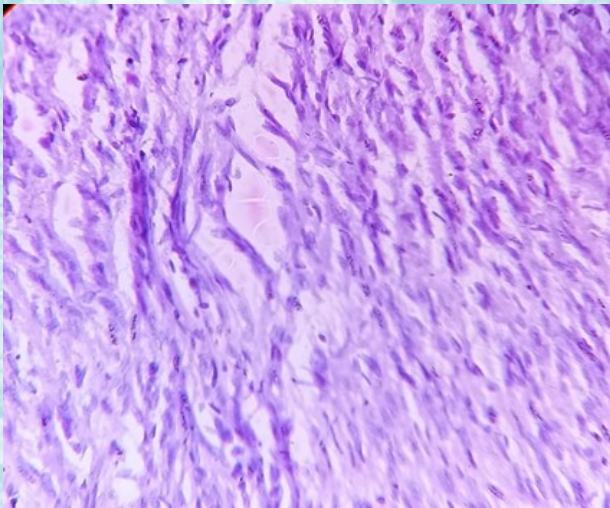
## Microscopic Findings (40 X)



Thickened Vessel



Adipocytes



Spindle Cells

### Conclusion:

Angiomyolipoma presenting with flank pain is merely rare. This case substantiates the need of assessing asymptomatic as well as symptomatic patients for renal masses like Angiomyolipoma.



# A Case Report of Ampullary Adenocarcinoma

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## Background:

Ampullary Carcinomas (ACs), or Ampulla of Vater carcinomas, represents a rare entity, accounting for approximately 0.2% of all gastrointestinal tumours and account for 20% of all periampullary cancers (PACs).<sup>1</sup>

Ampulla of Vater is a complex anatomical region that represents the junction of duodenum and pancreatobiliary type mucosa, resulting in a heterogeneous group of Malignancies and says that may arise from this site.<sup>2</sup>

## Case Presentation:

History: A 45 year old presented with pain abdomen for 2 weeks, jaundice, weakness, weight loss, episodes of vomiting for last 3days. No history of fever, cold or cough. Bladder and bowel normal.

On Examination: General Examination: Pallor – Pos, Icterus – Pos, Cyanosis – Neg, Clubbing – Neg, Edema – Neg

Investigations: Ultrasound: CBD calculus (0.59) with sludge and Intra Hepatic Biliary Radicle Dilatation. Hepatomegaly. Mass (? Cholangiocarcinoma) backpressure changes.

CECT Abdomen: Mass (? Cholangiocarcinoma) involving distal CBD causing backpressure changes.

## Histopathology:

### Gross specimen 1

- Soft tissue specimen of Pylorus preserving Pancreaticoduodenectomy consisting of duodenum with head of pancreas. Length of the duodenum is 17 cm, attached pancreas measures 4\*4\*3 cm.
- Common bile duct is cut flush.
- Cut surface a solid appearing tumour, greyish white, measuring 1.5 cm \* 0.8 cm (present intra ampullary within the ampullary cavity)

- Distance from medial margin 1cm
- Distance from posterior/ retroperitoneal/ uncinata margin 2cm
- Distance from pancreatic neck resection margin 3cm
- Duodenal Cut surfaces – Mucosal folds are noted.
- No ulcer or growth is noted on the mucosal folds.

### Sections taken

- A – Distal cut margin of the duodenum
- B – Proximal margin of the duodenum
- C – Common bile duct
- D – Pancreatic Neck resection margin
- E- Retroperitoneal Margin inked in blue
- F – Anterior margin inked in black
- G – Medial margin inked in red
- H – Tumour proper with ampulla
- I - Tumour with duodenal musoca
- J – Tumour with pancreatic tissue
- K – Normal looking pancreatic tissue.
- L – Normal looking duodenal mucosa
- M – Lymph node ( Anterior pancreatico duodenal)
- N – lymph node ( neck resection margin)
- O - ? Lymph node



### Gross specimen 2

- Soft tissue specimen of gall bladder of size 4\*2\*3 cm
- External Surface – smooth, greyish, white.
- Cut Surface – posterior thickened wall. Maximum wall thickness 0.8 cm
- Mucosa is velvety without any growth or ulceration
- Multiple small bits of calculi noted.

**Microscopy:** Section from the tumour proper with Ampulla shows tubuloglandular arrangement of neoplastic cells. Individual cells lining the glands are highly pleomorphic with coarse chromatin, prominent nucleoli, scant cytoplasm; Mitotic figures are also noted along with an intense reaction of infiltrating lymphocytes in this trauma.

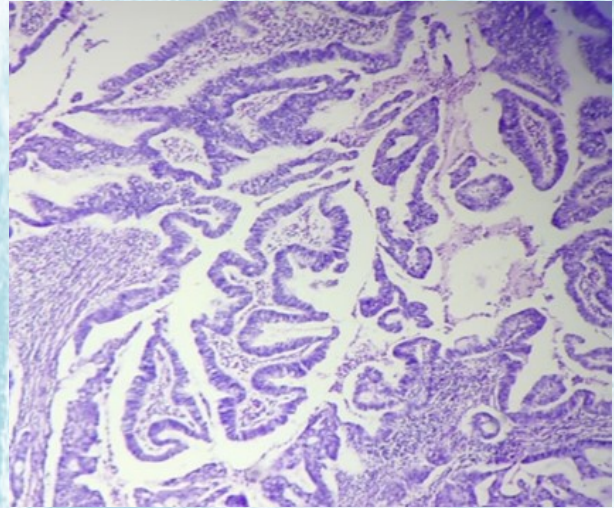


Figure3:H&E microscopic picture 10X



Figure 1: Soft tissue specimen of Pylorus preserving Pancreaticoduodenectomy

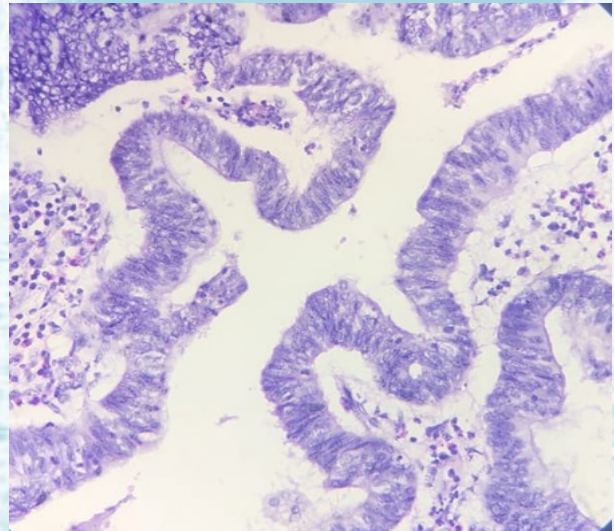


Figure 4: H&E microscopic picture HP, 40X

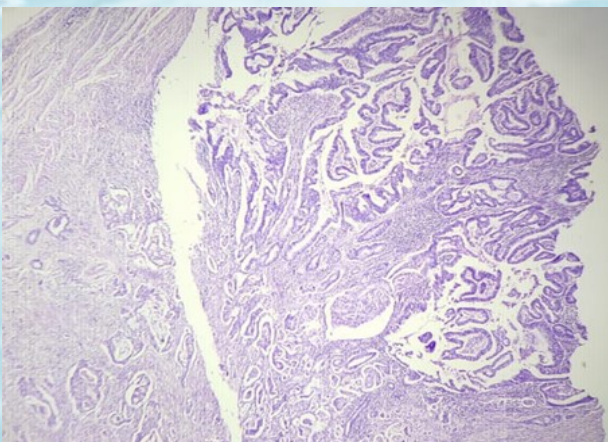


Figure 2: H&E microscopic picture LP 4X

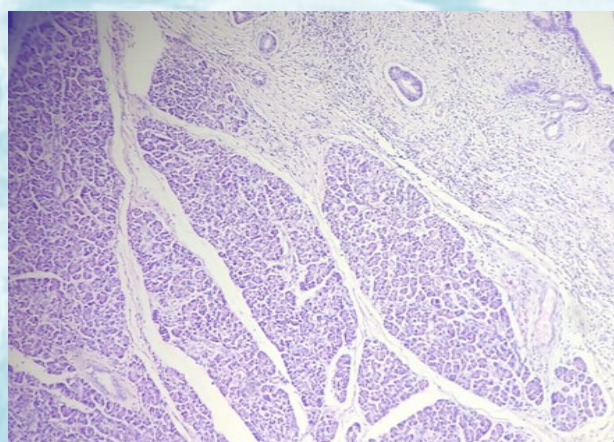


Figure 5: H&E microscopic picture HP, 40X



### Final diagnosis:

After total work up of ultrasonographic and histopathological correlation it was diagnosed as a case of Ampullary adenocarcinoma infiltrating the muscle layer (without involvement of the head of pancreas); with no infiltration of the metastatic tumour cells to the Lymph nodes (3) and CBD. All the resected margins and surfaces were free of any infiltration by tumour cells. Hence, Staged as Ampullary Carcinoma T3a N1 M0. The gall bladder tissue shows Chronic Cholecystitis.

### Discussion

Ampullary adenocarcinoma is a rare malignant neoplasms arising from the ampulla of vater, a dilated conduit resulting from the union of intestinal and pancreatobiliary epithelia. Histologically ampullary adenocarcinoma are heterogeneous.<sup>3</sup> Ampullary adenocarcinoma is classified into five sub-groups : Intestinal subtype adenocarcinoma; Pancreatobiliary subtype; Mixed subtype; mucinous subtype; poorly differentiated subtype.<sup>3</sup> Ampullary adenocarcinoma is a rare disease whose classification and prognosis are not well-established.\

### IHC<sup>4</sup>:

- Intestinal type stain positive for the CK20,CDX2,MUC2,MUC5AC,S100P
- Pancreatobiliary type stain positive for

MUC1,CK7

- Undifferentiated type stain positive for P53,CD68,SMARCB1

**Treatment:** A standard Whipple's procedure or a Pylorus Preserving Pacreaticoduodenectomy is the operative modality of choice which usually has to be followed by Neoadjuvant Chemotherapy.<sup>5</sup>

### Conclusion:

ACs is rare malignancies arising from the ampullary complex, distal to the confluence of the pancreatic duct and the common bile duct. In contrast to other malignancies, ACs usually present earlier in their disease course. For loco-regional disease, surgical resection followed by the administration of adjuvant chemotherapy (preferably gemcitabine) represents the preferred mainstay of treatment. The role of radiation is less clear. For unresectable and metastatic disease, systemic therapy with an antimetabolite (fluoropyrimidine and/or gemcitabine) combined with a platinum compound, (usually cisplatin or oxaliplatin) should be considered.<sup>4</sup>

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# Insight into the management of Vulvar Paget's disease: A recurring menace

## Report of 2 cases of MOH's surgery with review of literature

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### Background:

Paget's disease was first described by James Paget in 1874. Crocker identified the first case of EMPD in 1889. The occurrence of EMPD corresponds to less than 2% of vulvar neoplasias with preponderance for old age.

Extramammary Paget's disease (EMPD) is a rare cancer that affects the genital skin and, less frequently, the axilla in the elderly. It's assumed to be an apocrine tumour that develops from native stem cells that transform into glandular cells within the epidermis. Because it can imitate contact or irritant dermatitis, seborrheic dermatitis, tinea cruris, candidiasis, inverse psoriasis, or Bowen's disease, EMPD is sometimes misdiagnosed for years. Wide local excision, vulvectomy, or abdominoperineal resections are common surgical treatments that can cause severe morbidity and deformity. These modalities have relatively high recurrence rates (up to 60 percent). This is most likely due to EMPD's typical microscopic expansion beyond the clinically apparent borders.

In medical literature, the use of Mohs micrographic surgery (MMS) in the treatment of EMPD has been recorded. However, no large cohorts have been used to assess the efficacy of MMS in the treatment of EMPD. MMS differs from standard excision with histologic margin inspection in that it allows for intraoperative microscopic evaluation of the entire tissue margin. The procedure allows for the microscopically guided removal of malignancies while preserving healthy tissue.

Extramammary Paget disease has high rates of recurrence despite surgical margin status. Patients often undergo multimodal therapy. These data suggest that there is chronicity to the disease course and that management should include excluding an underlying malignancy with a focus on symptom control

while minimizing morbidity of treatment interventions.

In this paper, we present two cases where we performed Moh's surgery for vulvar EMPD, for one of them we also performed lotus flap vulvoperineal reconstruction. We highlight the fact that with a lower recurrence rate, high salvage rate, and critical tissue conservation, MMS is a better alternative to standard excision in treatment of cutaneous EMPD.

### Case Presentation:

#### Case 1:

A 54 year-old woman known hypertensive and diabetic presented with eczematoid lesion of vulva since 2 months. The lady was diagnosed with extramammary Paget's disease of vulva 2 years back, for which she underwent bilateral vulvectomy. The postoperative pathology report revealed bilateral vulvar Paget's disease without stromal invasion. As per the IHC profile it was CK7 positive and negative for S100 and GCDFP. But the resection margins were involved by pagets disease. It was explained to the patient that surgical resection is the standard of care for EMPD. But due to personal preferences, patient chose to stay on close follow up. 2 months later she presented with a 1x1 cm ulcer over left vulva. Patient was again counselled that surgical resection is the standard of care for EMPD but again she opted for medical management. Imiquimod 5% topical cream was applied three times a week for 16 weeks and on follow up 5 months later the lesion had completely resolved. Thereafter she was lost to follow up in view of the covid pandemic and associated travel restrictions. Almost after 2 yrs, she presented with this eczematoid lesion of vulva [figure].



## Investigations:

On local examination, the ulcerative lesion involved B/L labia minora and majora. The vagina was intact and there were no palpable inguinal nodes. Breast examination, mammography, Pap smear, cystoscopy and colonoscopy were all unremarkable. MRI revealed subcutaneous soft tissue thickening along margins of introitus, predominantly on the right side without definite nodular lesion and B/L prominent inguinal nodes. Bilateral labial biopsies were suggestive of invasive Paget's disease.

## Treatment:

Patient underwent MOH's MICROGRAPHIC surgery with lotus flap reconstruction. Her final postoperative histopathology report depicted Invasive Paget's disease with free margins. She recovered well and is on close follow up. As per discussion in multidisciplinary tumor board patient shall receive adjuvant RT.

## Description of surgery:

The area of the vulva to be excised was first delineated, taking into account surgical margins of 2 cm. Vulvectomy was performed and the excised tumor was mapped for orientation, a (Mohs map) of the surgical defect with anatomic landmarks and location of reference nicks was created.

The excised tissue and Mohs map were trans-

ferred for frozen tissue processing. The tissue was cut in a cryostat into frozen sections 5 to 7 microns thick and was oriented such that the deep margin and skin edge get aligned in a horizontal plane. Further the Sectioned tissue was fixed and stained with routine hematoxylin and eosin and careful microscopic evaluation of the entire peripheral and deep margin was done.

Residual tumor as identified on histologic examination was marked and guided removal of involved margins was done until negative margins are achieved.

Then immediate vulvoperineal reconstruction was performed by designing the suprafascial lotus petal flap.

## Post-operative follow-up:

The patient recovered uneventfully post-surgery and was discharged a week later in order to avoid unnecessary movements that might affect the healing process of the surgical wound. A follow-up session took place three weeks later for a post-operative examination and suture removal. The final pathologic analysis of the biopsy specimen revealed a multifocal vulvar Paget's disease, with surgical margins free of tumor as confirmed during the surgery. The patient returned after six weeks for a post-operative follow-up examination and is currently asymptomatic.





MOHS MICROGRAPHIC SURGERY AND LOTUS FLAP REPAIR



Inferior margin

1<sup>st</sup> FS: left labia lower margin

↓  
suspicious

↓  
Reexcision

↓  
2<sup>nd</sup> FS: Positive

↓  
Reexcision

↓  
3<sup>rd</sup> FS: Negative.



Left labial specimen sent for first frozen analysis

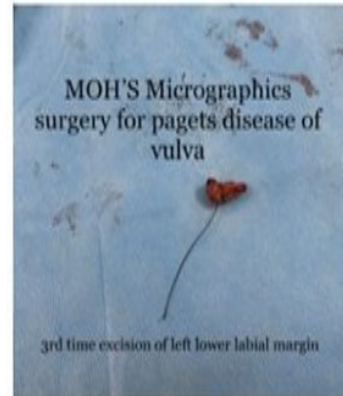
Left labial specimen sent for frozen analysis



Second time excision of left labial inferior margin

This came out to be positive in frozen so again third excision done

Second time excision of left labial interior margin. This came out to be positive in frozen so again third excision done



MOH'S Micrographics surgery for pagets disease of vulva

3rd time excision of left lower labial margin

Third time excision of left lower labial margin



Right labia sent for first frozen analysis

Right labial sent for first labial analysis



Second time Right sided vulvar margin excision (1inch) for positive margins at 10 o clock n 6 o clock position

Second time right sided vulvar margin(1inch) for positive at 10 o clock and 6 o clock position



## Case 2

A 50-year-old lady sought medical attention in January 2021 for a vulvar lesion with pruritus, since last 2 years. She reported the use of various topical corticosteroids without improvement. On physical examination, a crusted erythematous plaque was observed in the vulvar and perineal region, close to the fourchette. There were no palpable lymph nodes in the inguinal region. An incisional biopsy of the vulvar lesion was performed, with the histological and immunohistochemistry (CK 7 + /CK20+/HMB 45 -/S100-) studies confirming EMPD. The CXRAY, bilateral mammography, and GIT evaluation showed no abnormalities.

She underwent Moh's surgery with primary repair of the vulvar defect. No signs of residual tumor were observed in the post-operative examinations. The patient remains in regular follow up every six months, with no signs of recurrence to date.

## Conclusion:

Due to the rarity of the case, dermatological knowledge for early diagnosis, attention to other concomitant neoplasia, and the choice of appropriate treatment—whether medical or surgical—are crucial. The standard approach is Moh's surgical excision with anatomopathologic evaluation of frozen margins. As it is a recurring condition, close follow up is required.





**CONFERENCE  
ABSTRACTS**



# Unusual cause for intestinal obstruction

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**Introduction-**Esophagus Carcinoma is highly prevalent in North-East India. A fair percentage of cases present at an advanced stage requiring relief of dysphagia. Endoscopic stenting (SEMS) is an option which provides rapid relief of symptoms. However, SEMS may lead to potential complications like bleeding, tumor ingrowth and stent migration.

**Case Report-**A 55 year old lady, presented with dysphagia for the last 7 months and cough for the last 1 month.

Patient had no comorbidities. On Examination, PS-2, general and systemic examination was unremarkable. On evaluation, UGIE revealed patient to have ulceroproliferative growth involving esophagus from 30 to 36cm, GEJ at 40cm, rest unremarkable.

CECT chest and abdomen revealed irregular circumferential thickening from 2.5cm above carina, length of segment involved approx. 9-9.5cm, contact with aorta <90 degrees, patchy consolidation of right lower lobe lung with tracheo-esophageal fistula on right side. Patient underwent SEMS in view of above findings.

Post procedure, checked x-ray showed SEMS in situ and patient was discharged uneventful. She presented 2 months later with recurrent dysphagia. On Ba swallow, stent was not seen. Patient was admitted and kept NPO. UGIE was repeated but stent could not be located. Contrast x-ray study of abdomen was done, which revealed the stent lodged in left iliac region, possibly sigmoid colon. Patient was monitored by serial x-rays and then colonoscopic removal was attempted but failed. Patient then developed features of intestinal obstruction.

Patient was immediately taken up for laparotomy. Operative findings revealed dilated small bowel with stent located in sigmoid colon. Enterotomy and removal was attempted but was unsuccessful. Segmental resection and anastomosis was done and stent was re-

moved. Feeding jejunostomy was done in same sitting to manage dysphagia. Post operative recovery was uneventful and patient was discharged on jejunostomy feeds.

**Discussion-** Stent migration is a complication seen due to various factors including technical and patient related.

Law et al metanalysis showed high rate of technical success with low risk for serious adverse events when endoscopic sutures are used to affix covered esophageal SEMS. The risk of migration rose up to 55% in previous studies of covered esophageal SEMS without ancillary techniques to prevent migration.

The standard cadence for suture fixation calls for a bites in a "mucosa-stent-mucosa" sequence, followed by anchor deployment and suture cinching. Sutures placed at an inadequate depth (i.e., deep mucosa, superficial submucosa) are likely to migrate. Ideally, the suture should be placed into the muscularis propria. Obtaining adequate suture depth in the esophagus can be challenging in some cases due to the tangential working angle.

Sutures should be placed loosely with only minimal tension on the adjacent tissue, akin to "hanging" the stent. This allows for proximal and distal accommodation with peristalsis, thereby preventing local tissue ischemia and subsequent transection of the tissue (the so called "cheese wire effect") which occurs with overtightening.

Available literature has been unable to determine the technical factors (i.e., brand of stent, size of stent, etc.) that render patients most prone to covered SEMS migration after suture fixation.



# A Comparative Study of Neoadjuvant Chemoradiation followed by Surgery vs Surgery followed by Adjuvant Chemoradiation in Rectal Cancer (Stage 2,3)

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**Introduction:** Rectal cancer represents a spectrum of disease stages that needs careful definition to optimize multimodality treatment strategies and defining the true rectum which is of critical importance. CRC is the 3<sup>rd</sup> most common cancer in the world and is the 2<sup>nd</sup> most common cause of cancer deaths. In India it is the 7<sup>th</sup> most common cancer in both sexes. Adenocarcinoma is the most common type. CRC produces minimal or no symptoms. The aim of this study is to compare the DFS and toxicity between the two arms.

**Methods:** A RCT was conducted at Department of Radiation Oncology, RIMS which included histopathologically confirmed cases of rectal cancer (TNM Stage 2,3). All eligible patients were divided in two arms, Arm A (EBRT with 50Gy/25# concurrently with Tab Capecitabine followed by Surgery) and Arm B (Surgery followed by adjuvant chemoradiation with EBRT 50Gy/25# and Tab Capecitabine). Both the arms received same radiation treatment protocol. EBRT was given with Cobalt-60 teletherapy machine. During the period of chemoradiation the patients were checked weekly for acute radiation and chemotherapy toxicity. Late radiation and chemotherapy toxicity was assessed at 2 and 4 months, and response was assessed at 6 weeks after completion of treatment.

**Results:** A total of 50 confirmed cases of rectal cancer (TNM stage 2,3) were studied during a period of 24 months from August 2018 to July 2020 and were equally divided in both the arms A and B (25 each). Majority of the patients were <40 years old, male with KPS<80% and Stage 3B being the most pre-

dominant. Anemia, leukopenia and thrombocytopenia were common in the first week of treatment, which reduced in the subsequent weeks. Grade 1 skin toxicity, mucositis and GI toxicity were comparable in both arms during the first week. Grade 2/3 skin toxicity, mucositis and GI toxicity being more in Arm B w.r.t Arm A in subsequent weeks.

Skin toxicity and mucositis were comparable in both arms during follow-up. Renal and GI toxicity were more in Arm B at 2-month follow-up, but decreased in both arms at 4-month follow-up. DFS was 78.6% in arm A vs 75.4% in arm B, with a mean survival of 20.1 months and 19.8 months respectively, and no significant difference in the DFS between the two arms ( $p=0.923$ ). There was no statistical difference in DFS between the two arms even after adjusting for age, gender and TNM stage.

**Conclusion:** Management of rectal cancer has improved significantly with improved DFS, OS and toxicity, due to improved surgical techniques and neoadjuvant radiotherapy. This study showed early toxicity was more common in Arm B, with late toxicity being similar in both arms and no statistically significant difference in DFS. Further studies are needed on multicenter level with a longer duration of follow-up to add more evidence to the available literatures.



# A rare case report of synchronous diffuse large B cell lymphoma and retroperitoneal liposarcoma

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## Background:

Synchronous occurrence of two primary malignancies presenting as lymphoma and sarcoma is rare. A few cases of secondary malignancy presenting in that fashion have been reported after treatment of in patients with immunosuppression. However, a synchronous occurrence of primary retroperitoneal lymphoma and retroperitoneal liposarcoma has never been reported.

## Case presentation:

A 54 years old male presented to our institute in September 2020 with a sole complaint of right sided abdominal lump for 2 months. Per abdomen, a 30\*30cm lump was palpable involving all the quadrants in the right half of the abdomen. Contrast enhanced CT scan showed a right-sided lobulated retroperitoneal mass of dimensions 26\*20\*19cm. The intra-operative findings included the presence of a large growth present in the retroperitoneal region extending from the subhepatic area to the pelvic brim infiltrating the posterior

abdominal wall. The retroperitoneal tumor was excised too with margins and the retroperitoneal and the right pelvic nodes were also removed. The final histo-pathologic report showed two histologies:

1) Retroperitoneal mass- Well differentiated liposarcoma

2) Nodal specimen- Non Hodgkins lymphoma (diffuse large B cell). The patient received chemotherapy for lymphoma and adjuvant radiotherapy for liposarcoma. Patient had complete metabolic response PET-CT scan wise.

## Conclusion:

Retroperitoneal masses can arise from various tissues and are a diverse group, including some rare neoplasms. Co-existence of sarcoma and lymphoma in the retroperitoneum is definitely a possibility and needs tailored oncological care.

## Abstract: Dr. Tanshi Daljit

Cutaneous manifestation of cancers is a rare occurrence, even more so for bladder cancer; with a limited number of published reports. Iatrogenic implantation has been a major cause for it. With no clear distinction pattern from other common dermatological lesion, scattered occurrence and poor survival; no definitive strategies are present for management of these dermal manifestations. The present paper describes a case of scalp lesion consistent with metastatic urothelial carcinoma along with a review of literature.



# A Prospective study to evaluate radiological response rate in High Grade Glioma patients post adjuvant Chemo-radiotherapy.

Dr. Prashasti Sharma

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## Introduction:

Malignant high-grade gliomas accounts for approximately half of all the primary brain tumours in adults. These are highly fatal disease in terms of mortality and morbidity and have inferior prognosis with a median survival of 14 months. The current standard treatment is maximal safe resection followed by adjuvant radiotherapy with concurrent TMZ followed by maintenance TMZ. The outcome of treatment for gliomas depends on the various clinico-pathological factors.

## Materials and Methods:

This is single arm prospective study on biopsy proven WHO high grade (III and IV) gliomas patients. IHC was done for molecular marker in the post-operative specimen. All the patients after resection underwent radiotherapy with VMAT to a dose of 60 Gy in 30 fraction with concurrent TMZ (75 mg/m<sup>2</sup>) followed by six cycles of maintenance TMZ (175mg/m<sup>2</sup>) from day 1 to day 5 after every 28 days. The primary endpoint was to analyse and document the radiological response after completion of treatment.

## Results:

Twenty patients with median age of 50 years (SD : 15.88) were included. The majority of them were males (70%). Nearly 75 % of them have baseline ECOG 1. A total of 15 patients had worse RPA V/VI. The most common histology was GBM (50%), followed by anaplastic astrocytoma (35%), diffuse glioma (10%) and Oligodendroglioma in only 5%. The most common tumour site is frontal (25%) and parieto-temporal (25%) region. Majority of them underwent partial resection (55%). Only 10% of them had GTR. As per WHO grading, 60% had grade IV. Among the study participants 75% had retained ATRX and 40% were with mutant IDH. Only

2 patients had 1p19q co-deletion.

According to the RANO criteria after 6 cycles of maintenance TMZ, majority of them had stable disease (55%) and progressive illness was found in 7 patients (35%) while complete response and partial response were same in 4 patients (20%).

The patients who were more than 50 years of age had statistically poor treatment responses compared to their younger counterparts (p=0.018). Male patients showed progressive disease (50%). The patients who had complete response at 6 months had baseline ECOG 1 ( p=0.026). RPA III/IV and V/VI reported a high proportion with progressive disease as 44.44% and 100 % respectively. While all complete responders had RPA I/II. The association between histology and treatment response at 6 months was found to be significant (p=0.05). About 70% patients who developed progressive disease had GBM histology.

The patients with mutant type IDH2 had more complete responders, while those with wild type IDH2 had progressive disease at 6 months(p=0.004).

## Conclusion:

The study shows that concomitant RT + TMZ followed by maintenance regimen are effective and safe in treating high grade gliomas. However, increasing age and poor baseline characteristics offers poor outcomes .



# A survival study of Cervical Cancer Stage IVA patients: Experience from a Cancer Center in North-East India

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## Introduction:

Globally, cervical cancer is the fourth most common cancer in women, following breast, colorectal and lung cancer. GLOBOCAN 2020, reported the age-standardized incidence and mortality rates of Cervix Uteri cancer in the world as 13.3/ 100,000 population and 7.3/100,000 population, respectively. India contributes to one-fifth of worldwide cases of cervical cancer. Cervical cancer is the second leading site among women of North-East India with Age-adjusted incidence rates (AAR) of 10.7 per 100,000 population. The probability of developing cervical cancer is 1 in every 86 women in the North-East. Only one-fourth of the cases are diagnosed at localized stage. FIGO 2018 Stage IV accounts for 3.6% of all cervical cancer cases. The survival of patients with Stage IVA is poor due to interruption of concurrent chemo radiation to poor performance status, deranged kidney functions and other comorbidities.

## Methods:

Retrospective analysis of all patients diagnosed with Stage IVA Cervical Cancer for two years i.e., from 1<sup>st</sup> January, 2020 to 31<sup>st</sup> December, 2021 was done. The demographic profile, performance status, chief complaints, clinical staging, radiological staging, histological type, cystoscopy/proctoscopy/sigmoidoscopy findings, intent of treatment, radiation and chemotherapy received and disease status at the end of study were analyzed.

## Results:

A total of 26 patients were eligible for the study. More than 50% patients were above 50 years and only 1 patient was below 30 years. Out of 26 women, 18 (69%) women presented with ECOG performance score of  $\geq 2$ . Clinical stage IVA was assigned in 8(30%) based on presence of vesico-vaginal fistula or recto-vaginal fistula, remaining patients were

diagnosed after cystoscopy/proctoscopy. Bladder infiltration, rectal infiltration, both bladder and rectal infiltration were confirmed in 20 (77%), 4 (15%), 2(7%) patients respectively. Only 3 (11.5%) patients received curative treatment, out of which only one received concurrent chemotherapy with radiotherapy. Palliative treatment in the form of Palliative Radiation, Palliative Chemotherapy, Oral Metronomic Chemotherapy, Best Supportive care was given to 16 (61.5%) patients. Due to poor performance status, financial constraints, covid restrictions on inter-district travel, 7 (27%) patients received incomplete treatment/no treatment. The preliminary survival analysis (at the end of the study) reported that 14 patients (53.8%) have already succumbed to the disease.

## Conclusion:

Outcomes of Cervical Cancer Stage IVA are extremely poor. Various factors contribute to its grave prognosis. The patients should be treated by multidisciplinary team, including Gynecological oncologist, Radiation oncologist, Medical oncologist, Palliative care physician and social worker. New management strategies are needed, as well as efficient preventive strategies.



# Role of Metastatic Lymph Node Ratio (N ratio) as an Independent Prognostic Factor in Gastric Cancer Following Curative D2 Gastric Resection

Chandra Sekhar Vihari, Joydeep Purkayastha, Abhijit Talukdar, DeepJyoti Kalita, Gaurav Das

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## Introduction:

Gastric cancer is the 6<sup>th</sup> most common cancer in India. The 5-year overall survival of gastric cancer is 31.6% ranging from 64.1% in stage I to 4% in Stage IV. The 5-year overall survival of patients who underwent curative surgery is 62.8%. Depth of tumor invasion, number of lymph nodes involved and distant metastasis are independent prognostic factors.

## Materials & Methods:

This is a combined retrospective and prospective observational study conducted in Department of Surgical Oncology, BCCI from January 2017 to February 2020. All gastric cancer patients who underwent curative R0 D2 gastrectomy are included. Exclusion criteria include patients who died due to operative complications (30 days post op mortality), R+ resections, Metastatic carcinoma identified in post op HPE, Intra-op/ Frozen detected liver, peritoneal and non-regional lymph node metastases. Patients will be followed up for 2 years from the date of surgery.

Independent Variables analyzed includes: Depth of tumor (T stage), number of lymph nodes isolated, number of positive lymph nodes (N stage) TNM stage and Metastatic lymph node ratio.

Dependent (outcome) variables - 2- year Overall survival and distant recurrence free survival.

## Results:

A total of 57 patients were included in the analysis. The mean MLR is 0.23, mean no. of positive lymph nodes is 4.98 and mean no. of lymph nodes harvested is 20.32. The best cut-off value of MLR for assessing 2-year overall survival is obtained by receptor operative

characteristic (ROC) curve and it was found to be 0.29. Kaplanmeier survival analysis showed low MLR (<0.29) has 81% 2 year OS, and high MLR (>0.29) has only 20% 2 year OS ( $p < 0.001$ ). pN2 stage has 50% and pN3 stage has 25% OS ( $p = 0.001$ ). Stage II patients has 69% and stage III patients has 53% 2 year OS ( $p = 0.239$ ). On univariate cox regression analysis MLR, pN status and LVI status are found to be prognostic factors for survival.

High MLR has a hazard ratio of 7.54(95% CI -3.04 – 18.6,  $p < 0.001$ ), pN2 has a HR of 3.44(95% CI- 1.04-11.29,  $p = 0.04$ ), pN3 has a HR of 5.79 (95% CI- 2.14 -15.6,  $p = 0.01$ ). LVI positive status has a HR of 3.43(95% CI- 1.50-7.87,  $p = 0.03$ ). On multivariate cox regression analysis, high MLR is found to be independent prognostic factor and significantly associated with 2-year O.S. (HR-4.85;95% CI 1.29-18.2,  $p = 0.019$ )

Low MLR has more 2-year distant recurrence free survival (86.5%) than high MLR (75%), although it was not statistically significant ( $p = 0.277$ ). Histological type and LVI status has significant correlation with high MLR. Signet ring cell carcinoma (58.8% ,  $p = 0.014$ ) and positive LVI status(60%, $p = 0.019$ ) is correlated with high MLR.

## Conclusion:

MLR system is an independent prognostic factor for overall survival following curative gastrectomy with D2 lymphadenectomy and high MLR is associated with increased trend of distant recurrence. Signet ring cell type and positive LVI associated with high MLR.



# Pathological profile and outcomes of gastric cancer patients undergoing radical gastrectomy with D2 lymphadenectomy: a retrospective analysis from tertiary cancer centre in North-East India

Chandra Sekhar Vihari, Joydeep Purkayastha, Abhijit Talukdar, DeepJyoti Kalita, Gaurav Das

Department of Surgical Oncology, Dr. B. Booroah Cancer Institute, Guwahati

## Introduction:

Gastric cancer is the fifth most common cancer worldwide. It is also the fourth most common cause of cancer related death worldwide. Most cases are locally advanced in India at time of presentation. Perioperative chemotherapy and radical gastrectomy with D2 lymphadenectomy offer chance of cure for these patients.

## Methods:

This is a retrospective study conducted in Department of Surgical Oncology, BBCI. Study period includes all the patients who underwent gastrectomy from January 2017 to February 2020. Pathological characteristics evaluated include histological type, grade of tumor, size of tumor, depth of invasion (T stage), no of nodes involved (N stage), no of nodes isolated, margin status, PNI, LVI, isolated omental tumor deposits and TNM stage.

Categorical variables are measured using frequency and percentages

## Results:

A total of 101 patients had undergone radical gastrectomy with D2 lymphadenectomy during the study period. Of them 6.9 % (n=7) had final margin alone positive (distal margin - 6, proximal margin -1), 13.8% (n=14) had omental deposits(M1), 2.9% (n=3) had both omental deposits and positive margins. Only 0.9% (n=1) had non regional nodal metastases, 1.9% (n=2) had lymphoma histology (DLBCL) on final HPE (initial biopsy was poorly differentiated malignant neoplasm), 0.9% (n=1) had both peritoneal deposits and margin positivity. Only 1.9% (n=2) succumbed to post-operative complications and 11.8% (n=12) patient's details were incomplete.

Rest 57 patients (56.5%) were included in

final analysis. Out of 57 patients 38 are male (66.7%) and 19 are female(33.3%). A number of 44 patients had distal gastric(antropyloric) cancer (77.2%), 9 patients had proximal stomach cancer (15.8%), 4 had cancer mainly affecting body of stomach(7%). A total of 35 patients (61.4%) underwent distal radical gastrectomy, 10 (17.6%) underwent total gastrectomy, 6 (10.5%) underwent subtotal gastrectomy, 2 (3.5%) underwent proximal gastrectomy and 4 (7%) underwent multivisceral resection. A total 56 patients underwent D2 lymphadenectomy and in 1 patient D2+ lymphadenectomy was done.

Most common histology type is adenocarcinoma intestinal type (n=39, 68.4%) followed by signet cell variant (n=15,26.3%) and others (n=3, 5.4%). Majority of tumors are poorly differentiated (n=29, 50.9%), followed by well differentiated (n=18, 31.6%) and moderately differentiated(n=10,17.5%). Around 26.3% had lymphovascular invasion and 17.5% had perineural invasion. In 66.7% patients >15 lymph nodes are isolated. A total of 16 patients received neoadjuvant chemotherapy and only 1 patient had complete pathological response, 1 had near complete response and 9 patients had partial response.

Most tumours were in locally advanced stage with stage 3 comprising 64.9%. pT3 constitutes 42% cases and pT4a constitutes 35% cases. pN0-N1 comprises 54.4% cases.

## Conclusion:

Majority of patients getting operated were in locally advanced stage. Radical gastrectomy with lymphadenectomy can upstage the disease to metastatic stage. Intra operative frozen assessment of margins can reduce the margin positive rates. Perioperative chemotherapy should be emphasized for downstaging the disease.



# Tikhoff-Linberg procedure as a limb salvage surgery for malignant tumors of shoulder girdle: a report of 3 cases from tertiary cancer center in North-East India.

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## Introduction:

Tikhoff-Linberg procedure was the first true limb-sparing procedure of upper extremity. Originally described in 1928 for periscapular soft tissue sarcomas. Today the indications for this procedure are low and high-grade scapular sarcomas, periscapular and suprascapular soft tissue sarcomas.

## Technique:

The utilitarian incision is used with anterior limb of incision starting from mid third of clavicle, extending along the deltopectoral groove into arm and posterior limb of incision starting from midclavicular line curving along the lateral border of scapula and curves posteriorly at its tip. En bloc extra-articular removal of scapula, lateral end of clavicle and proximal humerus will be done with preservation of arm. It is divided into type A (abductors retained) and type B (abductors resected).

## Cases:

### Case 1:

A 45-year-old male, with recurrent left shoulder swelling for one and half years. On evaluation, he was diagnosed to have left scapula angiosarcoma. MRI showed destruction of left scapula with involvement of sub glenoid region. He underwent Tikhoff-Linberg resection and reconstruction was done with LCP plate, bone cement and prolene mesh. Post operative recovery was uneventful. (CDS-0). No sensory motor deficit of elbow, wrist and hand. Shoulder joint is stable.

### Case 2:

A 13-year-old female, diagnosed with Ewing sarcoma of left scapula. MRI on left shoulder showed that the tumor involved the glenoid cavity. PET CT showed left scapula primary with left femur metastasis. She received 9 weeks of induction chemotherapy followed

by Tikhoff-Linberg resection of left shoulder. The left shoulder joint reconstruction was done using modular prosthesis of humeral head. Pseudoarthrosis was established between prosthetic humeral head and lateral stump of clavicle with a prolene mesh forming the cavity around. Postoperative period is uneventful (CDS-0). Left shoulder is stable. Forearm, wrist and finger movements were normal. No sensory loss.

### Case 3:

A 40-year-old female, with left axillary mass for 1 year. Restricted range of movement 45-90 deg. On evaluation, she was diagnosed to have chondrosarcoma of left proximal humerus. On MRI and CT angiography of left shoulder, the mass was splaying the brachial plexus and also the axillary vessels with partial encasement of vessels. She underwent Tikhoff-Linberg resection. Intra op planned positive margins are obtained over brachial plexus cords and axillary vessels. Reconstruction was done with plate and screw fixed distally to remnant 6 cm distal humerus stump and proximally to the cut end of the clavicle using prolene mesh. This is a very recent case operated just days prior to this report.

## Conclusion:

Tikhoff-Linberg procedure is a type of shoulder resection facilitating limb salvage with preservation of upper limb form and function.



# Evaluation of Androgen Receptor Expression And Its Correlation With Histological Grades And ER, PR, Her2/neu Status In Invasive Breast Carcinoma Of Females

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Dr. Gayatri Gogoi (Assistant Professor), Department Of Pathology, Assam Medical College And Hospital

Dr. Mondita Borgohain (Professor and Ex Head of Department), Department Of Pathology, Assam Medical College And Hospital

Dr. Swatgata Dowerah (Assistant Professor), Department Of Pathology, Assam Medical College And Hospital

## **Introduction:**

Epidemiologic studies have suggested that increased levels of circulating androgens are associated with an increased risk for breast cancer, primarily ER/PR- positive breast cancers. AR is a member of the nuclear steroid hormone receptor family which also includes ER and PR. Steroid hormone receptors are critical components of signalling pathways and play a crucial role as transcription factors regulating gene expression.

## **Materials And Methods:**

We analysed a cross sectional study done on surgical specimen of breast tissue received from surgery department for histopathological examination in the department of pathology, Assam Medical College and Hospital Dibrugarh for a period of 1 year. The number of patients included during the study period was 23.

For Immunohistochemistry Representative areas were stained for AR, ER, PR, HER2/neu using standard protocol. Each run of immunohistochemistry detection were involved both negative and positive controls.

## **Results:**

AR was found positive in 13% of the patient.

AR positivity in each group of ER & PR, Her2/neu and TNBC was found to be 4.3% respectively.

AR positivity in Grade I was 0%, Grade II was 8.69% and Grade III was 4.34%.

## **Conclusion:**

AR expression was found in all subtypes of breast cancer (i.e ER & PR, Her2/neu and TNBC).

Therefore, AR status should be routinely assessed at the time of diagnosis of breast cancer along with ER, PR and Her2/neu status for selecting therapeutic treatment of breast cancers.

The dual role of AR as either a suppressor or inducer of tumor progression will enable both androgens and anti-androgens to be used as potential therapeutic regimens.



# A case report of well differentiated Neuroendocrine tumour of appendix

Dr. Limpy Khataniar, Dr. Adity Sharma, Dr Rashmi Deori

Department of Pathology, Assam Medical College and Hospital, Dibrugarh, Assam.

## Introduction:

Epidemiologic studies have suggested that increased levels of circulating androgens are associated with an increased risk for breast cancer, primarily ER/PR- positive breast cancers. AR is a member of the nuclear steroid hormone receptor family which also includes ER and PR. Steroid hormone receptors are critical components of signalling pathways and play a crucial role as transcription factors regulating gene expression.

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The dual role of AR as either a suppressor or inducer of tumor progression will enable both androgens and anti-androgens to be used as potential therapeutic regimens.



# Low Grade Medullary Osteosarcoma of Right Distal Femur

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## Introduction:

Low-grade intramedullary osteosarcoma (LGIO) is a rare intramedullary bone producing tumour, accounting for only 1-2% of all osteosarcomas. It has an equal gender distribution with the majority of cases occurring in the second and third decades. Any bone may be affected, but there is a strong predilection for femur and tibia.

Low-grade intramedullary osteosarcoma is a challenge for every clinician to diagnose. Many physicians had several failed to diagnose this tumour due to the very slow progression of symptoms, insignificance of laboratory markers, non-pathognomonic radiographical appearance, and failed biopsies.

## Methods:

We report a case of low-grade intramedullary osteosarcoma confirmed pathologically but radiologically mimicking high grade osteosarcoma.

35 years female was evaluated outside with swelling right distal thigh since 4 months, slowly increasing in size. Open intralesional excision biopsy was done, which was diagnosed as desmoid fibromatosis. Patient was referred to BBCI and patient was examined and evaluated with X-ray left thigh and leg, MRI of left thigh and leg, bone scan and repeat percutaneous co-axial biopsy of mass and CT thorax

**X ray thigh-** lytic lesion in distal femur with sunburst appearance

**MRI-** Mass lesion at lower end of femur involving meta-diaphysis with cortical as well as medullary involvement along with extra-osseous soft tissue component in the anterolateral and poster aspect

**Bone scan-** Consistent with lytic bone lesion involving right distal femur, rest of Skelton is

normal

**CT thorax-** No evidence of any metastatic disease

**Co-axial biopsy-** Low grade spindle cell tumour/sarcoma with

**D/D-malignant perineuroma, inflammatory myofibroblastic tumour, myxoid synovial sarcoma and low grade osteosarcoma**

## Results:

**Treatment-** patient was operated with wide local excision of soft tissue mass along with segmental resection of bone with endoprosthesis reconstruction and discharged without any postoperative morbidity. Patient reported in follow up with knee flexion up to 90 degree

**Final biopsy-** low grade spindle cell tumour involving medullary cavity of bone suggesting low grade osteosarcoma

**IHC-** overexpression of MDM2, confirmed low grade osteosarcoma, and differentiated it from benign lesion which can be sometimes difficult to differentiate between low grade osteosarcoma and benign tumours

## Conclusion:

Low grade intra-medullary Osteosarcomas pose a diagnostic challenge. The histological diagnosis is difficult, often misdiagnosed as benign condition and requires a pathologist familiar with bone tumours.

Here we report opposite case of intramedullary osteosarcoma having clinical and radiological features of high-grade osteosarcoma but pathologically diagnosed as having low grade features, which has been rarely reported in literature. Its treatment requires surgery only. LGIO must be distinguished from conventional osteosarcomas because of its better prognosis and no benefit of chemotherapy.



# Influence of Immuno histochemistry markers on Survival and Prognostic factors in Endometrial Carcinoma

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## Introduction:

Endometrial carcinoma has been studied extensively in the literature. There are still many unanswered questions related to management of EC and the oncologists have to face new challenges every day. Immunohistochemistry markers appear to be an attractive and cost-effective replacement for genetic assays with wider clinical applicability aiding in classification, planning surgery and guiding adjuvant therapies. In this study, our aim was to determine the mismatch repair proteins and p53 expression by immunohistochemistry in operable endometrial carcinoma patients. Clinicopathological factors and survival were then analyzed and correlated with these immunohistochemistry markers.

## Methods:

A retrospective cohort study of 115 cases of carcinoma endometrium who underwent primary surgery in our hospital from 1.7.2013 to 31.12.2020 with a minimum follow up of one year. Available tissue blocks were stained for IHC expression of MMR and p53 proteins. Patients were stratified into type I and Type II histologies. Clinicopathological factors, overall and disease-free survival were then compared on the basis of mismatch repair deficiency and p53 status after stratifying the population into two groups of MSI and MSS and p53 positive and p53 negative divisions.

## Results:

The mean age of study population was 58.9 years with a mean BMI of 31.61 Kg/m<sup>2</sup>. The mean follow-up was 41.29 months (12 to 102 months). 97 patients underwent IHC staining for MMR and p53 proteins. Amongst these 97 patients, 79 patients belonged to Type I histopathology and 18 patients belonged to Type II histopathology. The 79 patients of Type I histopathology were further divided into MSS or microsatellite stable group and MSI

or microsatellite instable group. MMR deficit status was seen in 17(21.5%) patients and 62 (78.5%) patients were MSS. For the 18 cases of Type II endometrial carcinomas, 5 (27.8%) patients were p53 positive whereas 13 (72.2%) patients were p53 negative. For patients with Type I histopathology; the clinicopathological factors like stage, age, grade of the tumor, lymphovascular space involvement, lymph node status and myometrial invasion were compared between the MSI and MSS groups. Patients with microsatellite instability were more likely to present with a higher grade, a positive lymph node status and with lymphovascular space invasion. The overall survival and disease free survival are not significantly affected in patients with loss of MMR proteins. Due to a smaller number of cases in p53 group, clinicopathological features and survival could not be compared.

## Conclusion:

Analyzing of immunohistochemistry status for evaluating the microsatellite instability in patients with Type I endometrioid adenocarcinomas is an alternative and efficient tool in predicting the prognosis for these patients. Further studies with more sample size can help us in studying the impact of MSI and p53 on OS and DFS and for guiding in the management of the same.



# A rare case of Leiomyosarcoma of Anterior Chest wall

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## Introduction:

Primary chest-wall leiomyosarcoma (LMS) is a rare subsite for this tumour. In adults, this type of tumor is usually found in the retroperitoneum and extremities. When LMS is associated with rib destruction, it may mimic a primary bone tumor or metastasis. We present here the case of a histologically proven chest wall sarcoma and its management.

## Case presentation and summary:

A 16 year old female presented to the OPD with a swelling in right upper anterior chest wall for 1 year. The lady had no history of pain at the local site, shortness of breath, fever. The size of the swelling was 10 cm x 8cm and was overlying the clavicle and first four ribs anteriorly on the right side and fixed to the chest wall. Contrast enhanced CT scan of thorax revealed a heterogeneously enhancing soft tissue mass 9.6 x 8 x 6.1 cm mass in right side of chest wall with bony erosion and intrathoracic extension. Metastatic workup was completed with CT scan of abdomen and bone scan which showed no distant spread. Core biopsy was done from the lesion which showed slender to plump spindle cells arranged in fascicles with collagen forming stroma, suggestive of spindle cell neoplasm. Immuno-histologically, the tumor stained positive for vimentin, CD-99, SMA and negative for EMA, BCL-2, CD-117, desmin, S-100, CD-117. The final diagnosis was confirmed to be low grade leiomyosarcoma. The patient was decided to get operated first in MDT. Video assisted thoracoscopy (VATS) was done and a 2 cm margin around the tumor was marked using cautery. Wide local excision of the tumor with resection of medial half of the clavicle and part of first, second and third ribs and a part of sternum on the right side was done followed by reconstruction with composite bone cement and prolene mesh along with latissimus dorsi flap cover the mesh. The postoperative HPE report showed R0 resection with adequate margins.

Patient was eligible for post-op radiotherapy in view of size. But it was decided to keep the patient under close observation in MDT in view of the low-grade histology and young age of the patient to prevent radiation induced second malignancy in the patient. Three months in to the follow-up, patient is doing fine.

## Discussion:

Wide excision with a sufficient margin (2–3 cm) is the only curative option. As the defect was 15 cm × 12 and involved resection of part of clavicle and 3 consecutive ribs, we had to do rigid fixation to avoid flail chest and also have adequate soft tissue and skin cover. We used prolene mesh and bone cement to reconstruct the chest wall and latissimus dorsi myo-fasciocutaneous flap.

A primary leiomyosarcoma of the chest wall in children is extremely rare. Until now, to the best of our knowledge, there were only three previous reports in the clinical literature describing a primary chest wall leiomyosarcoma in children.

Treatments for leiomyosarcoma are still under debate. A high grade leiomyosarcoma is very aggressive and preoperative chemotherapy, surgery with wide resection or amputation and postoperative adjuvant therapy is often performed. The most commonly used chemotherapeutic agents are doxorubicin, ifosfamide and mesna, and radiotherapy is often given for postoperative adjuvant therapy. Low grade leiomyosarcoma is often treated with surgery alone.



# Early-onset gastric cancer from a geographic area of high gastric cancer incidence in North-East India: A Retrospective study

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Department of Surgical Oncology, Dr. B. Booroah Cancer Institute, Guwahati

## Introduction:

We aim to report about the clinical outcomes of gastric cancer when it has an early onset (40 years of age or less) from an area of high incidence in Northeast India.

## Methods:

A retrospective observational study in a tertiary care cancer centre in NorthEast India. The study population included all patients of age 40 years or less, with a confirmed diagnosis of gastric adenocarcinoma. The duration of study was from 1 st January 2016 to 31 st December 2020. Data was collected from review of physical case records and electronic medical record system and results were presented using percentages, median values and range.

## Results:

There were a total of 79 patients with early-onset gastric cancer in the study period.

There was female preponderance (45:24) and no documented co-morbid illness. Even though the majority of them (43%) presented in stage IV, most of them (87.3%) had good performance status (ECOG0-2). Poorly differentiated adenocarcinoma was the most common histological subtype (36.7%) and signet ring carcinoma was found in 25.3% of patients. Only 25 patients underwent definitive surgery (30.4%). They had high nodal burden, with median metastatic lymph nodal ratio of 0.35 (range 9 to 0.91). A high number (40%) of them had distant recurrence, mostly peritoneal (80%) within a short period of time (median of 9.5 months). Patients who did not have curative treatment had dismal survival (range 0 to 18 months).

## Conclusion:

Early-onset gastric cancer in North-East India has been associated with overall poor outcomes. Key-words: Gastric cancer, early-onset cancer, poor prognosis, signet ring cell.

# Osteoclastoma of The First Rib- A Rare Case Report

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Osteoclastoma or Giant cell tumors (GCT) are locally aggressive benign neoplasms arising from epiphysis of skeletally mature long bones. It commonly occurs in 3<sup>rd</sup> and 4<sup>th</sup> decade individuals with a slight predilection to females. Most common site is around the knee joints, pelvis, humerus etc. GCT involving the rib is very rare with an incidence of less than 1%. A very few cases of GCT involving the first rib has been reported worldwide. We report such a rare case of GCT involving the first rib of a 17 year old adolescent girl who had been successfully treated at our institute.



# Primary ovarian carcinosarcoma – A rare histology which never fails to be aggressive!

Dimpy Begum, Aparajita, Debabrata Barmon, Upasana Baruah

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## Introduction:

Ovarian carcinosarcoma constitutes 1-4% of all ovarian cancers. The more common site of sarcoma in the pelvis is the uterus. In this paper, we are reporting a case of ovarian carcinosarcoma initially operated at non-oncology centre and referred to us after incomplete surgery.

## Case details:

A 44 year old non-hypertensive and non-diabetic nulliparous female presented to outpatient department with history of sub-total hysterectomy and right oophorectomy done for ovarian tumour at peripheral hospital one month back. Histopathological examination showed malignant spindle neoplasm. Immunohistochemistry test was done at our centre to determine the definitive diagnosis and thereby the primary site of origin. The overall feature was suggestive of ovarian carcinosarcoma/ mixed mullerian tumour with stromal

overgrowth. The patient underwent completion surgery and completion of cytoreduction (CC) score of zero could be attained. Final histopathological examination revealed it to be a stage IIIc disease with intra-abdominal metastasis. The patient completed platinum based adjuvant chemotherapy within stipulated time. However, the disease progressed within one month of completion of chemotherapy and the patient is currently receiving second line agent.

## Conclusion:

Given that carcinosarcoma are rare, prospective data are lacking and case reports, series and observational studies contribute to the understanding of natural course of the disease. This case report stresses upon the need to widen our vision for the rare histologies and their timely diagnosis and appropriate management. This case also affirms the aggressive behaviour of the disease as cited in the previous literature.

# Comparison of nutritional status with socio demographic, disease and treatment related factors in head and neck cancer patients- A Hospital based prospective study

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## Introduction:

Head and Neck cancer is a collective name for malignant tumours in the upper aero-digestive tract, i.e. tumours of the paranasal sinuses, nasal cavity, oral cavity, pharynx, larynx, and salivary glands. Of all cancer patients, HNC patients are at the highest risk for malnutrition due to its impact on structures that are fundamental for daily

living activities such as swallowing, eating, breathing, and communication. Pre-treatment malnutrition is found in 19-52% of cases especially in patients with tumours of the oral cavity and pharynx. During therapy, nutritional status often declines further as a consequence of treatment-related toxicities. Nonetheless prevalence of malnutrition varies considerably between the studies due to



differences in tumour locations and stages, the intensity of the anti-tumour treatment, the availability of nutritional therapy and the different criteria used in the literature for the identification of malnourished patients.

### **Materials and methods:**

**Study Design-** Institution-based single-arm prospective study

**Sample Size-** A total of 59 patients were enrolled

**Period of Study-** 1 year

**Selection of patients and treatment location-** Head and Neck cancer patients planned for definitive radiotherapy with or without chemotherapy attending the department of Radiation Oncology, BBCI

All the biopsy-proven head and neck cancer patients who met the inclusion criteria were examined clinically and nutritional status assessment with the aid of SGA (Subjective Global Assessment) Questionnaire was performed.

Radiotherapy planning was done by using appropriate beam energy and portal with a conventional 2D simulator

The dose prescribed was 60-70 Gy/30-35# with or without concurrent chemotherapy.

The concurrent chemotherapy regimen was inj Cisplatin 40 mg/m<sup>2</sup> weekly

### **Results:**

For comparisons, the worst nutritional status (nutrition at the EORT) was considered as the reference point

In age group 31-40 years there was a single patient who was categorized malnourished. Between 41-50 years, n=18 (85.7%) and in patients above 50 years n=35 (94.6%) patients were malnourished. Nutritional status did not show any significant variation with age (p-value= 0.483).

Of the 49 male patients, majority n=45 (91.8%) were malnourished. Similarly, out of 10 female patients, majority n=9 (90%) were malnourished. There was no statistical differ-

ence observed (p-value: 0.843).

Tumour site also did not seem to have a significant correlation with nutritional status as major proportion of patients of all the sub-sites included in the study were malnourished,

Among Stage IVB patients (n=4), 100% were malnourished followed by n=29 (93.5%) of Stage III, n=17 (89.5%) of Stage IVA and n=4 (80%) of Stage II patients. Although rates of malnutrition were slightly higher with more advanced stage, the difference did not reach statistical significance (p-value: 0.684).

On comparison of patients receiving radiotherapy alone versus chemo-radiation in our study, it was observed that majority of patients in both the groups were malnourished (89% vs 92%, respectively).

### **Conclusion:**

This study revealed the negative impact of RT on the nutritional status of patients with HNC. Our tool for assessment i.e. SGA happened to be useful and effective for the same. Our findings confirmed that the nutritional status deteriorated during treatment, with maximum deterioration at the EORT.



# Standard-dose versus high-dose radiotherapy with weekly concurrent chemotherapy in Carcinoma Esophagus: A Prospective randomized study

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## Background:

According to GLOBOCAN 2020 data, 604100 cases of carcinoma esophagus were detected (3.1% of total cases), and it was the 8th most common cancer in the world. Chemo radiation with or without resection is the most common therapeutic regimen offered to patients with locally advanced (stage II or III) cases. In this geographical area the incidence of Esophageal cancer is very high as per ICMR Report 2021 which is (13.6%) of total cancer patients. At the same time there is lack of data among patients of carcinoma esophagus for dose of radiotherapy, DFS, PFS, and OS who are treated radically by chemo radiotherapy in this geographical area.

## Materials & Methods:

An Open-Label, Randomized, Prospective Study which includes patients of carcinoma esophagus planned for definitive chemo radiotherapy from 7th August 2020 to 6th June 2021. All the patients were randomized on a 1:1 basis to standard-dose (Arm A 50.8Gy/28#) and high-dose (63Gy/35#) groups along with weekly concurrent chemotherapy using inj. Paclitaxel and inj. Carboplatin. Primary objective was to compare the clinical response rate, tolerability of carcinoma esophagus among patients 63Gy radiation dose versus standard-dose, i.e., 50.4Gy radiotherapy. Secondary objective was to compare the toxicity between the two arms.

## Results:

In a total of 96 patients were randomized with majority in both the arms aged 50 years or more, with 63.04% in Arm A and 68.75% in Arm B. Median age at diagnosis is 54.4yr. Most of the cases are Males All the cases were Squamous cell carcinoma histology (mostly MDSCC), majority involving mid thoracic esophagus in both the arms. All the

patients were T3 tumors with the heterogeneity of nodal staging. At conclusion complete relief from dysphagia (grade 0) was experienced by 41.3% of patients in Arm A versus 37.5% in Arm B. Dysphagia relief at 3 month in Arm B (83.3%) versus Arm A (76.1%) at 3 months follow up (p-value 0.0751).Thirty-nine patients (84.8%) in Arm A (standard dose arm) showed complete endoscopic response as compared to 36 patients (75%) in Arm B (high dose arm). The difference was found to be statistically significant (p-value <0.0001) with a superior tumor control in Arm-A. According to RECIST criteria version 1.1 at 3 months follow up, CECT Thorax showed CR, PR, PD rates in the standard-dose arm were 63%(n=29), 13%(n=6), 2.2% (n=1), 21.7(n=10) % respectively, while in Arm-B with high dose radiotherapy arm these rates were 64.6% (n=31), 25%(n=12), 2.1% (n=1), 8.3%(n=4) respectively. The complete response (CR) rate was slightly greater in the high-dose arm, 64.6%, than the standard-dose arm (63%) (P = 0.1587).As per CTCAE criteria common toxicity was anaemia, dermatitis; also evaluated for odynophagia, diarrhea, aspiration and pneumonitis but no difference of toxicity found between the two arms.

## Discussion & Conclusion:

The subjective relief from dysphagia, radiological response at 3-month follow-up periods were not significantly different between the two arms but endoscopic response showed significant difference with superior tumor control in arm-A. Hence, according to the results of this study, a dose of 50.4 Gy radiotherapy and concurrent chemotherapy could be used as the standard definitive treatment of locally advanced unresectable esophageal carcinoma patients of North East India. However, a longer follow-up of our patients is required to observe to see the further trend of our study translates into results of long-term local control, PFS and OS.



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