

Sushruta

Newsletter of Surgical Society of Bangalore

MAY 2021

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President Elect.

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President Elect.

Dr.Harisha N S
Hon. Secretary

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Hon. Jt. Secretary

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Hon Treasurer



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Newsletter of Surgical Society of Bangalore

MAY 2021

Editorial

Dear Esteemed Member of SSB,

'SUSHRUTA' is a monthly newsletter, creating a platform where in the members and surgical postgraduates can publish original articles, case reports, surgical guidelines or any other material of surgical relevance, This will be made available online for all the members.

I request everyone to make use of this platform to disseminate, share or acquire knowledge.

Dr Kalaivani V
Editor SSB KSCASI CC

Dear All,

Kindly encourage this new monthly initiative of the SSB.

Academic Articles

Please send articles, guidelines, humour, stories, trivia, quiz questions and interesting Case report or case series with Review of literature for academic purposes.

Non-Academic

Inviting articles - That may be appropriate and interesting to the SSB members. Examples: life beyond surgery, my daily routine, how I manage stress, interesting place I traveled, books I recommend etc.

Opportunities / Classifieds

Relevant Jobs, Ad's and upcoming events can be included at a nominal fee as per the discretion of the Editorial team.

Feedback / Suggestions

Any other suggestions for improvements, feedback, letters to the editor, inputs are welcome.

Deadline :

Last day of every month.

Send your article to : editorssb@gmail.com

WhatsApp - 8197910166

Please mark all your contributions via emails, WhatsApp with the heading for Sushruta and mention your name, designation and institution.

Request all the SSB members to actively contribute, participate and wholeheartedly appreciate this new initiative "Sushruta - official newsletter of the Surgical society of Bangalore"

Regards,
The Editorial team of Sushruta

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Newsletter of Surgical Society of Bangalore

MAY 2021

Message from the President



Dear Members,

It's a good sign that the severity of the pandemic is coming down, but the number of positive cases are still alarmingly high, as well as the number of deaths.

Until the situation improves, we will continue with online monthly clinical meetings and CMEs. The Surgeons Day celebrations this year too will be on a virtual platform. Please mark the time and date for the same- Saturday, June 26th 2021, 6 pm onwards.

The President of ASI, Dr. Abhay Dalvi will be the Chief guest. You are in for an academic fest with Prof BN Balakrishna Rao oration being delivered by Dr. Anil D'Cruz, a reputed surgical oncologist. Two senior surgeons, Dr. Joseph Antony and Dr. Srimurthy KR will be felicitated on the occasion. Please find the invitation with the zoom link attached. I request you to attend in good numbers.

Stay safe and stay protected.

Dr. Venkatachala K
President SSBASICC 2021



Online Monthly Clinical Meeting



SURGICAL SOCIETY OF BENGALURU ASICC (R)

Cordially invites you to the

SURGEONS DAY

Chief Guest: Dr Abhay Dalvi
President - Association of Surgeons of India

Felicitation of Senior Surgeons

Dr. Joseph Antony
Dr. K R Srimurthy

Book Release

Fact & Fun In Surgery: A Companion To Surgical Study
written by Dr. C S Rajan

Prof. B. N. Balakrishna Rao Oration

by

Dr. Anil K D' Cruz

Director of Oncology, Apollo Hospitals
President, Union International Cancer Control (UICC), Geneva
Ex -Director & Chief, Head Neck Services, Tata Memorial Hospital Mumbai

Time: 6-00 pm

Day & Date

Saturday, 26th June 2021

Dr. Venkatachala K
President

Dr. Harish N S
Hon Secretary

Please Login by 5:45pm
Links in Page 2



Online Monthly Clinical Meeting

PROGRAM

1800-1805	Invocation:	Dr. Chandrika Muralidhar
1805-1815	Welcome Address by President:	Dr. Venkatachala K
1815-1820	Lighting of the Lamp by Guests	
	Felicitation of Senior Surgeons:	
1820-1825	Introduction of Dr Joseph Antony:	Dr. Anantharam
1825-1830	Felicitation of Dr Joseph Antony	
1830-1835	Introduction of Dr K. R. Srimurthy	Dr. Ravishankar H R
1835-1840	Felicitation of Dr K. R. Srimurthy	
1840-1845	Introduction of Chief Guest:	Dr H V Shivaram
1845-1850	Address by Chief Guest:	Dr Abhay Dalvi
1850-1855	Book Release	Dr Abhay Dalvi

SCIENTIFIC PROGRAM

1855-1900	Introduction of Prof. B. N. B. Rao Orator:	Dr Sreevathsa M R
1900-1925	Prof. B.N.Balakrishna Rao Memorial Oration:	
	Dr Anil K D'Cruz	

Topic: "Research and Clinical practice: Are they 2 sides of the same coin?"

1925-1930	Vote of Thanks:	Dr. Harish N S – Hon Secretary
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National Anthem

Zoom Meeting link:

<https://us02web.zoom.us/j/5410500137?pwd=dlVRxWlhcEltRkSzUkR0lU0TW9uRm1Xdz09>

Meeting ID: 541 050 0137

Passcode: 957151

YouTube Streaming Link: https://youtube.com/watch?v=VjgWxmH_MA



Interview with Surgeon – Dr Tehemton Udwadia



Dr Tehemton Udwadia



Awarded Padma Bhushan

PROFESSOR TEHEMTON ERACH UDWADIA

OBE, MS, FCPS, FRCS(Eng.), FRCS(Edin.), FAMS,
FIAGES

FACS(Hon.), FICS (Hon.), FARSI (Hon.)

Emeritus Professor of Surgery, Grant Medical College &
J.J. Hospital.

Past Consultant Surgeon and Head, Department of
Minimal Access Surgery,

P.D. Hinduja Hospital & Research Centre.

Senior Consultant Surgeon, Breach Candy Hospital &
Research Centre.

Senior Consultant Surgeon, B. D. Petit Parsee General
Hospital.

Past Chairman Centre of Excellence Minimal Access
Surgery Training Centre (CEMAST)
Mumbai.

Born 15 July

1934 (age 86)

Mumbai, Maharashtra,
India

Occupation General
Surgeon

Known for Pioneer in
Laparoscopic surgery

Parent(s) Erach Rustomji

Perin Erach

Awards Padma Shri

Padma Bhushan

Dr. B. C. Roy Award

SAGES Millennium
Award

IAGES Lifetime

Achievement Award



Professor Tehemton Erach Udwadia is an alumni of St. Mary's High School, Wilson College, and Seth G.S. Medical College, Bombay, graduating from the University of Bombay in 1956. He did his post-graduation from the University of Bombay and the Royal Colleges of Surgeons of England and Edinburgh. Joined the Surgical Staff of the Grant Medical College & J.J. Hospital, Mumbai in 1963.

He retired as Honorary Professor of Surgery in 1993 and is now Emeritus Professor of Surgery, Grant Medical College & J.J. Hospital, Mumbai. He was Consultant in Surgery to the Armed Forces and Chairman Indian Chapter, Royal College of Surgeons Edinburgh. He has been elected President of several National and International Surgical Societies such as the Indian Association of Gastrointestinal Endo-Surgeons (Founder President), Society of Gastrointestinal Endoscopy of India, the Association of Surgeons of India, International College of Surgeons World Body, Society of Endoscopic and Laparoscopic Surgeons of Asia and President of the International Federation of Societies of Endoscopic Surgeons (IFSES).

He has been honoured with the Padma Shri National Award from the President of India in 2006 and the Padma Bhushan National Award from the President of India in 2017. He has been honoured with the Order of the British Empire (OBE) by Her Majesty Queen Elizabeth II, and the distinction of Honorary Fellowship by the American College of Surgeons. The Albert Einstein Foundation celebrated the centenary of Einstein's Theory of Relativity by nominating 100 Visionaries of the World of Our Times. Prof. Udwadia's name was in the list of these 100 world Visionaries. Professor Udwadia is a Founder Member of HPB International.

His efforts were recognized by several awards bestowed on him. To name a few, Dr. B.C. Roy National Award for promoting the Speciality of Laparoscopic Surgery in India from the President of India, Hunterian Professorship of the Royal College of Surgeons of England, Surgikos Lecture of the Association of the Surgeons of Great Britain and Ireland, Pandalai Oration of the Association of Surgeons of India, Sir Sriram Oration of the National Academy of Medical Sciences, Sir James Ross Lecture of the Royal College of Surgeons of Edinburgh, Ganga Ram Oration, the Dr. Karl Storz award of the Society of American Gastrointestinal Endoscopic Surgeons, the Lifetime Achievement Award of the Society of American Gastrointestinal Endoscopic Surgeons (SAGES), Indian Association of Gastrointestinal Endo Surgeons, the Association of Surgeons of India, and a Gold Medal and citation from Dr. Abdul Kalam, President of India.

A forceful, innovative and renowned teacher and surgeon, he was the first surgeon in India to start laparoscopy in surgery in 1972, and the first to perform laparoscopic surgery in the developing world in 1990. With missionary zeal Professor Udwadia has conducted workshops all over India and in Nepal, Mexico, Brazil, China, Myanmar, Bangla Desh, and other developing countries spreading the gospel of laparoscopic and Minimal Access Surgery. He has put all his efforts into realizing his belief that the benefits of surgical advance should be made available to all people, in all places, irrespective of their socio-economic status. His innumerable research papers and presentations over fifty years cover a wide field of surgery - from myocardial revascularisation (his PhD topic), to research in abdominal tuberculosis, ascites, hydrocephalus, peritonitis, flexible endoscopy and diagnostic and therapeutic laparoscopy.

Over the last eight years Professor Udhwadia, as Chairman of the 'Center of Excellence for Minimal Access Surgery Training' (CEMAST), has laid the foundation of a state of the art Minimal Access Surgery Training Center, comparable to the best in the World, giving training to surgeons from all over the subcontinent in every surgical speciality of MAS. To date over 8000 surgeons have been trained in MAS at this Center.

Along with over 30 professional affiliations he has been conferred Honorary Membership of the American College of Surgeons, Japan Section of the International College of Surgeons, Indian Association of Gynaecological Endoscopy, College of Surgeons of Brazil, Surgical Society of Nepal, the International College of Surgeons, German Society of Visceral (Abdominal) Surgery, the Association of Rural Surgeons of India, and the Society of Endoscopic and Laparoscopic Surgeons of Asia (ELSA). The Asia-Pacific Hernia Society (APHS), has admitted Prof. Udhwadia the APHS Hall of Fame. Examiner in Surgery to several Universities in India and abroad, the National Board of Examination and the Royal College of Surgeons, Past Chairman / Editor Indian Journal of Surgery, and the Editorial Board of several National and International Journals (British Journal of Surgery, International Surgery, HPB Surgery, National Medical Journal of India etc.). Professor Tehemton E. Udhwadia is the author of two landmark books on Laparoscopic Surgery – "Laparoscopic Cholecystectomy" (1991), and "Laparoscopic Surgery in Developing Countries" (1997) and contributing author to 36 books on surgery. He was the Founder Editor-in-Chief of the Journal of Minimal Access Surgery, and is now the Emeritus Editor-in-Chief of the Journal.

EXTRA-SURGICAL ACTIVITIES

Member College Team for Athletics, Cricket, Boxing, Debate.

Captain College Athletics and Cricket Team (1955 – 1956)

Corporal, National Cadet Corps (NCC).

General Secretary, G.S. Medical College Gymkhana (1954 - 1955).

Past Member Bombay Flying Club.

Past Member, Willingdon Sports Club Golf Team.

Married in January 1959. Three children. Six grand-children

Brief intro:

I am a General Surgeon, have been a General surgeon all my life. I do laparoscopic surgery because I believe laparoscopic surgery is the logical progression of general surgery brought on by new technology.

Place of birth: Bombay

Early education, MBBS, MS, more: Alumni of St. Marys School, Wilson College and G.S. Medical College



Your mentor's:

My chief mentor was my father, Professor P.K.Sen with whom I worked for almost 12 years,
Dr. Baliga, Dr. Karmarkar and several of the teachers I worked with in my residency.

What are you Favourite surgeries?

Laparoscopic surgeries, tension free repair of inguinal hernia by Lichtenstein method and oncosurgery.

What surgery are you reluctant to do?

I am reluctant to do any surgery which is not indicated; otherwise I can do any surgery.

How and why did you choose Surgery?

I chose surgery because my father started his House post in Surgery but because of financial reasons he had to look after his parents that is why he had to leave surgery and go into general practice. He always wished one of his sons would do surgery and I was very happy to do surgery. It was one of my dreams from the time I was 12-14 years old.

What would you do different if you get a chance to relive PG life?

I wouldn't do anything different,
I would learn more and teach more
and spend more time with my residents.

Personal Interests /Hobbies beyond surgery:

Golf, I have been playing golf for more than 50 years and more.
I am interested in travel, in literature.

Favourite food you recommend –

The best food is Parsee food and I would recommend Parsee food for everyone.



Favourite books - you recommend

Books which are serious like Shakespeare, there is so much to learn from each book of Shakespeare, Aequanimitas by William Osler, and then lighter books like P.G.Wodehouse

Favourite place of travel –

I recommend - Kerala, it is a beautiful part of India.

Favourite quotes – “Do unto others as you want them to do to you”

Any regrets (or anything for younger surgeon's to avoid...):

I have no basic regrets apart from the fact that I would like to spend more time with my family and more time with the children.

Any way you tackle stress...

I think the best way to tackle stress is to find out the cause of stress and get rid of it.

Also please elaborate on:

Keys to your success

I don't believe that anyone has achieved success.

Success is not a destination. Success is a journey and as you go through your life journey you go on trying to succeed and what happens at the end is what may be called success.

Any message to younger surgeon's:

Do clean honest surgery.

Never run down your colleagues or be nasty or talk behind their back.

Remember that there is a large gap between the surgeon and the patients today.

{Thanks to the greed of the surgeon being money minded and}

It is your duty to close the gap by treating every patient like he/she is your relative.

BANGALORE SURGICAL SOCIETY MEET MAY 2021

19/05/2021

PAPER ABSTRACT

Dr Vishak D, Dr Srinivas, Dr Dhanasekar
Bangalore Baptist Hospital



Dr Vishal, Bangalore
Baptist Hospital

INTRODUCTION AND OBJECTIVES:

The study was conducted to determine the incidence of complications following double J ureteric stenting and the impact it has in the quality of life of the patient

MATERIALS AND METHODS:

A total of 96 patients were included in the study. All patients undergoing ureteroscopy and stenting above the age of 18 years were included in the study. Patients with indwelling stent, UTI or uncontrolled diabetes were excluded from the study. The study was conducted from October 2019 to December 2020. In majority of patients stents were removed 2 weeks post stenting. The patients were assessed using the Ureteric Stent Symptom Questionnaire (USSQ) at i) 24 hrs post stenting ii) 1 week post stenting and iii) at the time of stent removal.

RESULTS:

Among the patients undergoing stenting 53% were between 20 to 40 years of age. 63% of patients undergoing stenting were males. In our study the incidence of irritative bladder symptoms was most common (84%) followed by dysuria (70%) immediate post stenting. Incidence of hematuria was 4-6 % immediate post stenting. At the time of stent removal the incidence of irritative bladder symptoms and hematuria was almost negligible. 90% of the patients resumed work after 5-8 days of leave. Stenting did not have any effect on the quality of life of the patient. No patient required additional consultations or hospital admissions for urinary symptoms post stenting.

CONCLUSION:

The incidence of irritative bladder symptoms and dysuria is higher immediate post stenting and came down at the time of stent removal in our study. In our study the incidence of hematuria was low. Stenting or ureteroscopy did not have any effect on the quality of life of the patient. Stenting had no impact on sexual life of the patient.

A RARE CASE OF GIANT AMELOBLASTOMA

Dr Nithya Manayath (Oncosurgeon), Dr. Gayathri Priyabindu V (Plastic surgeon),

Dr Rajendra S Gujjalanavar (Plastic surgeon), Dr Adarsh Manjunath (Resident)



Dr Adarsh (Bangalore Baptist Hospital)

ABSTRACT: INTRODUCTION:

Ameloblastoma is a tumor that is unicentric, anatomically benign, intermittently growing, and clinically persistent.[1] As the name signifies ameloblastoma is tumor originating from the odontogenic epithelium and is the most common benign odontogenic tumour of the jaws that constitutes about 1% of all cysts and tumours of the jaws.[2] [3] It is a painless, slow growing, locally aggressive tumour causing expansion of the cortical bone and infiltration into the soft tissues. Ameloblastoma is most commonly seen in the third to fourth decade of life and found equally in male and female population. Ameloblastoma is most commonly found in the molar ramus region of mandible.[4]

CASE REPORT:

A 38 year old, male, patient presented to us with a history of swelling in the lower jaw for 10 years. His mouth opening was fair, with no restriction of tongue movements or vocalization and was able to consume a soft diet.

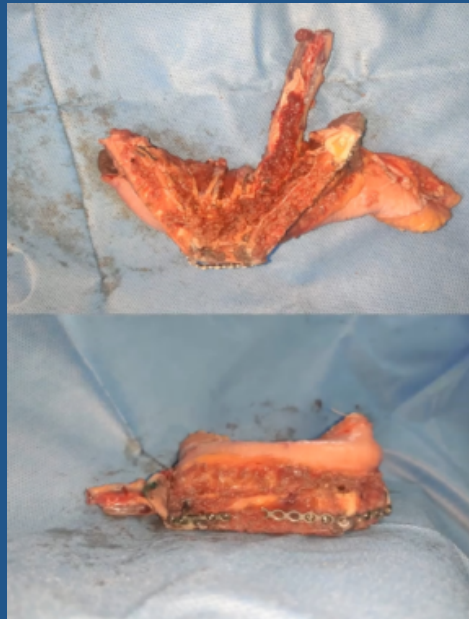
On examination a huge non tender swelling involving the lower jaw with variable consistency of size 25x20cm involving the entire body of the mandible, upto the angles . Lower lip, floor of the mouth and lower gingivobuccal sulcus was significantly stretched with loss of multiple tooth from lower jaw, with few displaced residual teeth still attached on the overtly stretched jaw, and no obvious ulcer/lesions in the oral cavity. On further evaluation with CT of head and neck revealed a 21X20X15cm expansile lytic lesion involving the body of the mandible and muscles in the floor of mouth are extensively stretched with loss of fat planes - Probably ameloblastoma.

After preoperative optimization, the patient was taken up for Wide local excision of mandibular tumor and, reconstruction with, fibula free vascular myocutaneous flap. Due to the enormous size of the tumor, mask ventilation and laryngoscopy was difficult, hence awake fiberoptic nasal intubation was done under the airway block.

Simultaneous mandibular resection and fibula free flap construction was done. Gigantic size of the tumor led to altered anatomy, making resection of the tumor a difficult task. Fibula free flap was harvested from the left lower limb and fashioned to form the new mandible by making multiple osteotomies on the fibula while preserving the blood supply of the fibula. Refashioned fibula was anchored to bilateral ramus of the mandible using plates and screws while maintaining maxillo-mandibular relationship and plantaris tendon was used as the static sling to maintain oral competence. Covering tracheostomy was done for airway protection, in view of extensive mandibular and floor of mouth resection.

Final histopathology reported, a tumor weighing 5.4kg, made up of bony capsule in few areas and filled with brownish colored fluid - conventional multicystic ameloblastoma with reactive regional nodes and 2 cm margin.

Post operative period was uneventful. Patient was started on oral liquid feeds on post operative day 10 which he tolerated well. Tracheostomy was decannulated after settling of the edema and the patient was discharged on post operative day 13.





Dr Nithya Manayath
MBBS, DNB (General Surgery), DNB (Surgical Oncology)

Dr. Gayathri Priyabindu V.
DNB (General Surgery), M.Ch (Plastic & Reconstructive Surgery)

Dr Rajendra S Gujjalanavar
DNB (General Surgery), M.Ch (Plastic & Reconstructive Surgery), DNB (Plastic Surgery), Fellowship in Microsurgery

Dr Adarsh Manjunath
MBBS, DNB(General Surgery) – 3rd YEAR RESIDENT

Refferences:

1.) Gupta A, Jindal C. Hybrid ameloblastoma: Report of a rare case and review of literature. Int J Oral Maxillofac Pathol 2011;2:68-72

2.) Kahairi A, Ahmad RL, Islah Wan L, et al. Management of large mandibular ameloblastoma—a case report and literature reviews. Arch Orofac Sci 2008;2013:52-5

3.) Giraddi GB, Bimleshwar, Singh C, et al. Ameloblastoma—series of 7 treated cases—and review of literature. Arch Oral Sci Res 2011;2013:152-5

4.) Vohra FA, Hussain M, Mudassir MS. Ameloblastomas and their management: a review. Pak J Surg 2009;2013:136-42



Title - comparative study between endovascular laser ablation (evla) and radio frequency ablation (rfa) for treatment of varicose veins of lower limb.

dr.n.durgaprasad, dr.c.r.chhallani



Dr Durgaprasad
(Bhagwan Mahaveer
Jain Hospital)

Introduction

Varicose vein disease is a common condition affecting a significant proportion of the population and is known to worsen quality of life. Open surgical treatment is no longer the mainstay of intervention with the introduction of endothermal laser ablation, using either Radio frequency ablation (RFA) or Endovenous laser ablation (EVLA). Despite endothermal methods being accessible, uncertainty remains as to the ideal treatment for varicose veins which would offer the best outcomes.

Aim:

Analyze and compare the outcomes after endovascular laser ablation with radio frequency ablation.

Objectives:

Study performed to objectively analyze and compare the outcomes by using following parameters

- A) Recanalisation.
- B) Mean operative time.
- C) Pain (VAS scale).
- D) Post-operative hospital stay.
- E) Number of days required to get back to work.
- F) Short term effectiveness, patient satisfaction.
- G) Complications associated with procedure.

Methods

It is a non-randomized, Prospective, comparative, observational study done in patients who underwent either endovascular laser ablation or radio frequency ablation for treatment of lower limb varicose veins in Department of General surgery in Bhagwan Mahaveer Jain Hospital, Bengaluru from 1st August 2019 to 31st July 2020.



RESULTS:

Early and late postoperative complications and Mean operative time were slightly higher in EVLA group compared to RFA. Both EVLT and RFA are comparable in terms of duration of hospital stay. Patients in the EVLA group reported slightly more pain over the first week compared to RFA group

CONCLUSION

It was found that both RFA and EVLT techniques performed well with regard to high occlusion rates and are similar in efficacy.

RFA is superior to EVLT with regard to reduced post-operative pain and minor post-operative complications and mean operative time.



PRESSURISED INTRAPERITONEAL AEROSOL CHEMOTHERAPY (PIPAC) IN THE MANAGEMENT OF ADVANCED PERITONEAL CARCINOMATOSIS



DR. SOMASHEKHAR SP , DR. ASHWIN KR , DR. ROHIT , DR. PRIYA KAPOOR
MANIPAL COMPREHENSIVE CANCER CENTRE , BENGALURU .
somashekhar.sp@manipalhospitals.com

INTRODUCTION :-

Peritoneal metastasis is a common pattern of spread in advanced gynaecological and gastrointestinal malignancies. Patients typically present with ascites, abdominal pain, nausea, vomiting, malnutrition, bowel obstruction with significantly impaired quality of life. The current available treatment options include palliative systemic chemotherapy, palliative surgery or supportive care having dismal outcome.

The poor prognosis in peritoneal metastasis is multifactorial and includes chemoresistance to cytotoxic drugs, poor tolerance of systemic chemotherapy, poor performance status of the patients, dysfunctional bowel associated with tumor involvement

Peritoneal carcinomatosis is uniquely confined only to the abdominal cavity with limited outside spread . Hence there is a principal role for local therapy in management of such cancers .



Hyperthermic Intraperitoneal Chemotherapy (HIPEC) overcomes few of the pharmacokinetic challenges and improves survival in few patients but at the cost of high morbidity rates and deterioration in quality of life (QoL) of the patients. Moreover not all patients will be candidates for HIPEC at presentation. HIPEC can only be offered to patients in whom optimal cytoreduction can be achieved. Thus there is a pressing need for better therapeutic options for peritoneal metastasis for prolonging survival and improving the Quality of life by reducing both disease related symptoms and side effects of therapy.

Pressurised Intraperitoneal Aerosol Chemotherapy (PIPAC) is a novel technique for delivering normothermic chemotherapy into abdominal cavity in the form of aerosol under pressure. Preliminary studies have reported better outcomes in terms of better bioavailability by using the cytotoxic agents under pressure into the peritoneal cavity with enhanced depth of drug penetration and superior distribution.

In addition, this prevents systemic side effects and toxicity associated with systemic chemotherapy like renal toxicity (cisplatin), neurotoxicity (oxaliplatin) and cardiac toxicity (doxorubicin)

MECHANISM AND TECHNIQUE :-

PIPAC is a minimally invasive approach relying on physical principles for improving intraperitoneal drug delivery, including:

- 1) optimizing the homogeneity of drug distribution by applying an aerosol rather than a liquid solution;
- 2) applying increased intraperitoneal hydrostatic pressure to counteract elevated intratumoral interstitial fluid pressure;
- 3) limiting blood outflow during drug application;
- 4) steering environmental parameters (temperature, pH, electrostatic charge etc.) in the peritoneal cavity for best tissue target effect.

The abdomen is accessed with two balloon trocars, 12 mm and 5 mm.

The 10–12-mm port is used for the nebuliser – capnopen and one for 5-mm optical trocar. The abdomen is insufflated with CO₂ under standard pressure conditions of 12 mm Hg. Ascitic fluid is quantified and sent for cytology or, if ascites is not present, a peritoneal flushing is done, and the fluid is sampled for cytology. The abdominal cavity is then thoroughly explored and the peritoneal cancer index is documented and at least three representative biopsies are taken using punch biopsy forceps. Intraperitoneal chemotherapy containing oxaliplatin alone for colorectal malignancies or cisplatin followed by doxorubicin for ovarian,

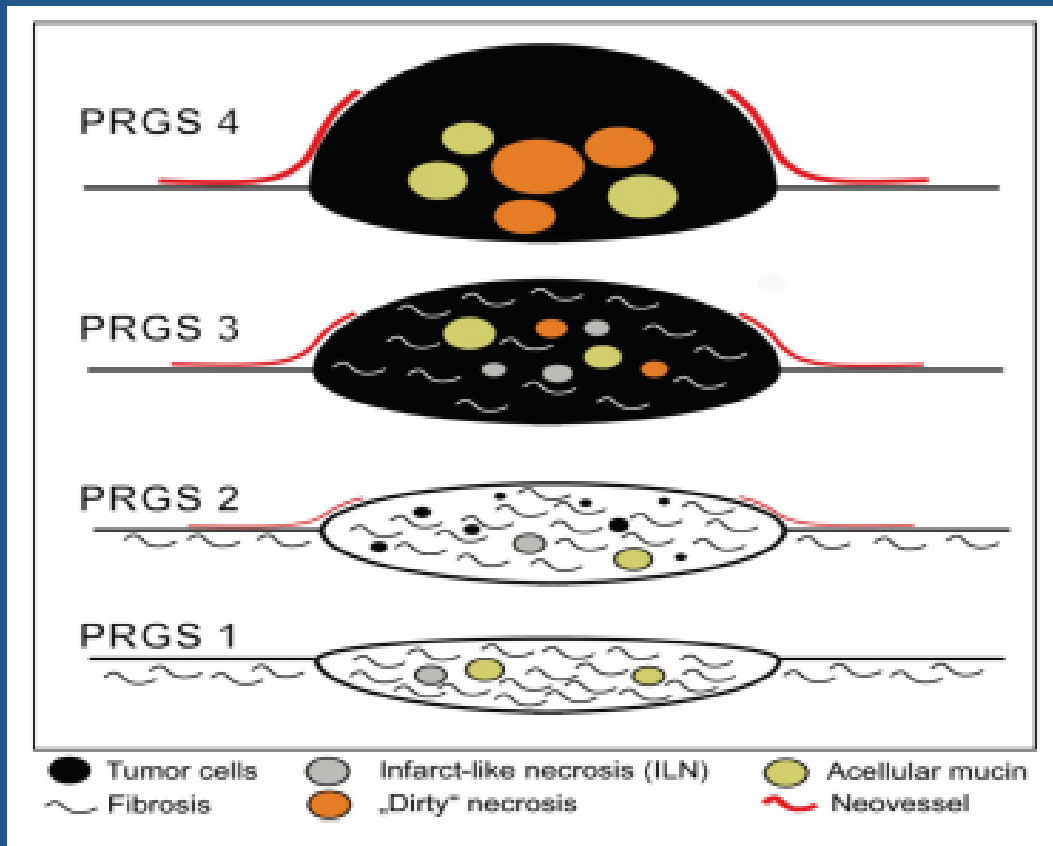
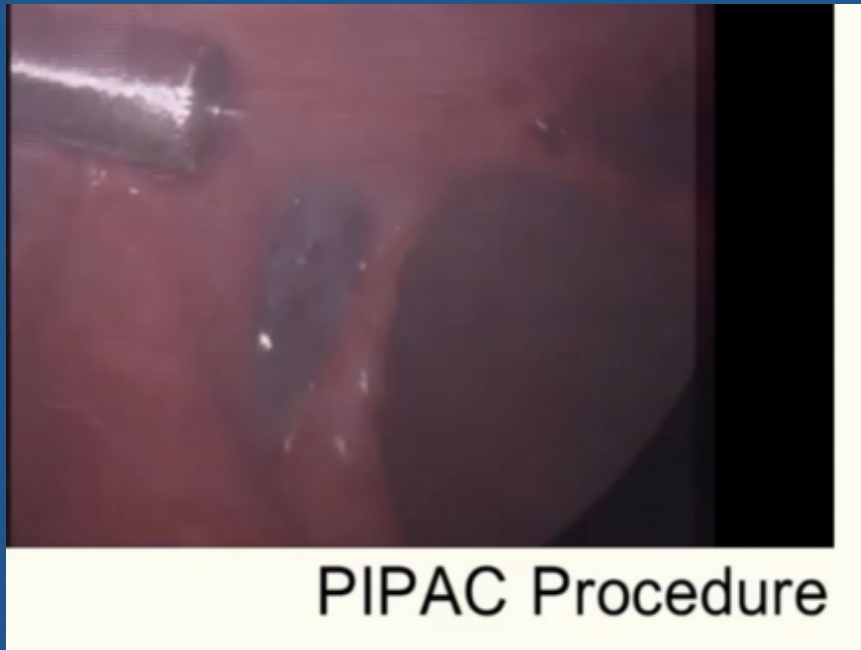
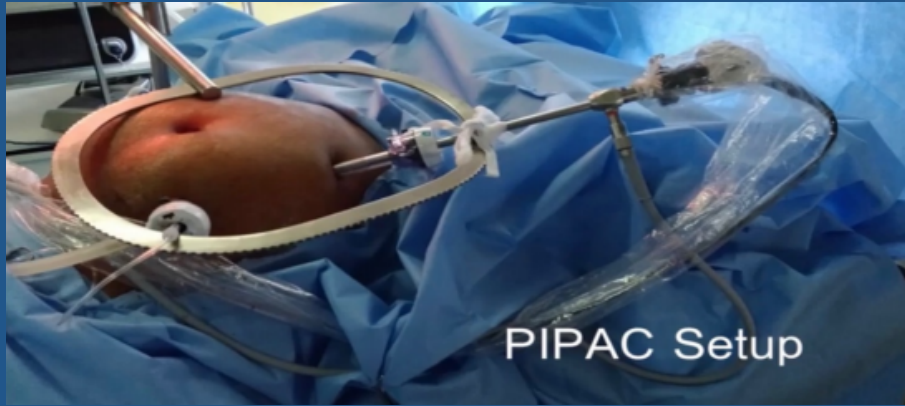


gastric malignancies and mesothelioma is injected in sequence is then applied as an aerosol using a standard high-pressure injector (maximal upstream pressure 290 psi, flow rate 0.5–0.7 mL/s) and using the procedure-specific nebuliser (CapnoPen).

In addition, PIPAC allows repeated application and objective assessment of tumor response by comparing biopsies between chemotherapy cycles.

For evaluation of the histological regression, the peritoneal regression grading score (PRGS) is used. The PRGS distinguishes between four grades of tumor regression, PRGS 1–4. The radiological response is measured as per RECIST 1.1 criteria. European Organization for Research and Treatment of Cancer (EORTC) generic questionnaire QLQ-C30 (version 3.0) is used to measure QoL and symptoms







INDICATIONS :

1. Advanced Peritoneal metastasis secondary to mesothelioma, gastric/colorectal/ovarian cancer .
 2. In patients where the option of cytoreductive surgery and hyperthermic intraperitoneal chemotherapy was not possible .
- It is a compelling option in patients who have undergone multiple lines of chemotherapy with minimal response .

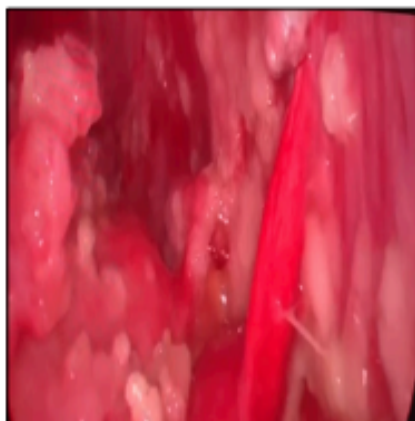
RESULTS :-

In the study done at manipal comprehensive cancer centre 40 patients underwent 137 PIPAC procedures between April 2018 to April 2020. 40 % of the patients had colorectal primary, 7.5% gastric, 5% mesothelioma, 47.5 % of ovarian origin . In our study the the median range of hospitalisation was 1.2 days. Mean operating time was 96.3 minutes

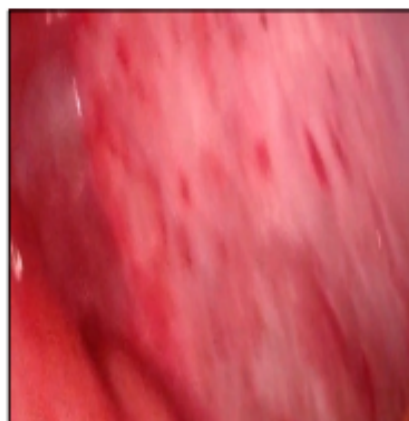
In this study there was no PIPAC related mortality. 16 % of the patients complained of grade 2 abdominal pain. There was no grade 4 CTCAE event in 6 7189 our study. None of our patients had deterioration of liver or kidney function profiles.

28 (67.5 %) of the patients had an improvement in the PRGS score and 62.5 % had response as per the RECIST criteria.

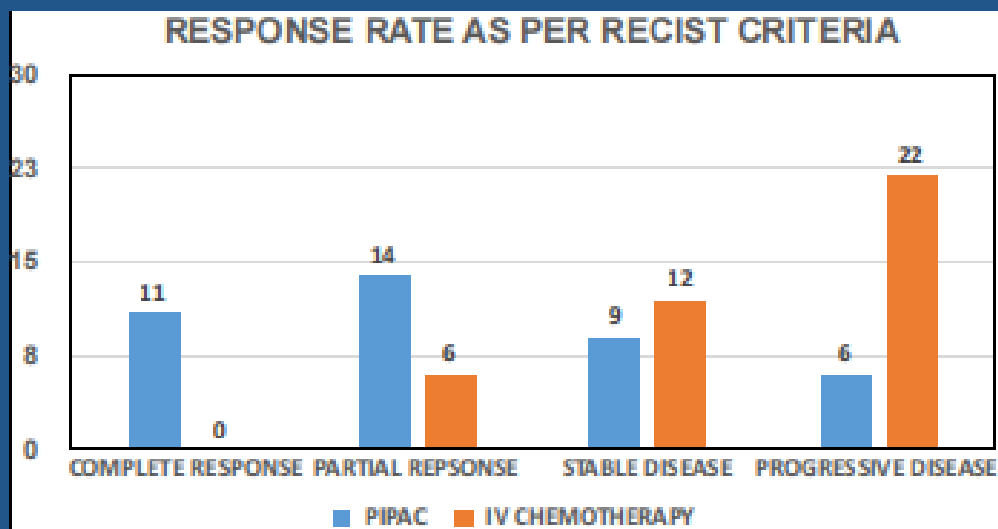
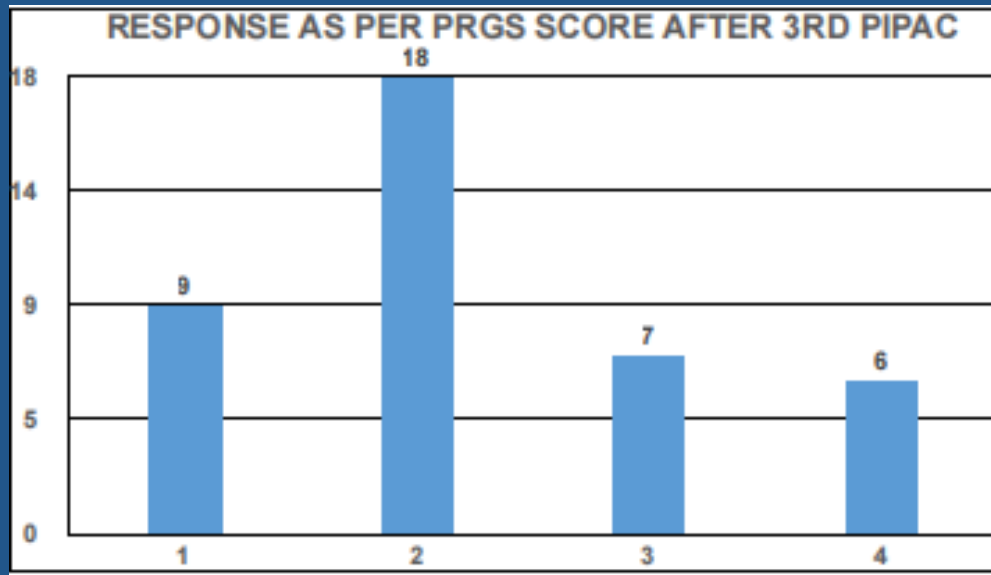
The most striking result that emerges from this study is the improvement and stabilisation of Quality of life under PIPAC. There was an improvement in the symptoms score – fatigue, gastrointestinal symptoms under PIPAC therapy



1st PIPAC



3rd PIPAC



ADVANTAGES OF PIPAC :-

1. All patients with advanced peritoneal disease can undergo PIPAC including those with poor performance status
2. Day care surgery
3. Minimally invasive technique
4. Can be repeated multiple times
5. Improves quality of life / abdominal symptoms
6. No systemic toxicity



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RARE CASE REPORT OF SURGICAL CURE OF SECONDARY HYPERTENSION

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ABSTRACT:

Retroperitoneal functional paraganglioma is a rare type of neuroendocrine neoplasm which secrete excess catecholamines including epinephrine, norepinephrine, dopamine and their metabolites metanephrine, normetanephrine, 3methoxytyramine, respectively. Early diagnosis of functional paragangliomas are important because their removal is often curative. The extent of disease was evaluated using 2(18F)-fluoro-2 deoxy-D-glucose positron emission tomography [FDG-PET], increased uptake of 18-FDG observed in the mass. It is one of the rare curable causes of secondary hypertension. Here, we present the rare case of a young female who presented with recently diagnosed hypertension and pain abdomen, who was later found to have functional paraganglioma. To our knowledge, retroperitoneal functional paraganglioma is extremely rare.

KEYWORDS:

Functional paraganglioma, retroperitoneal paraganglioma, surgical management, Secondary hypertension, FDG-PET.

INTRODUCTION:

Functional retroperitoneal paragangliomas are rare tumours arising from paraganglia cells derived from neural crest which are catecholamine-producing tumours. Also known as extra-adrenal pheochromocytomas. The rule of thumb in pheochromocytoma is that approximately 10% of them are extra-adrenal (of which 10% are extra-abdominal), 10% are malignant, 10% are not associated with hypertension and 10% are hereditary¹.

The classical symptoms of functional paraganglioma, present in approximately half of all patients, are attacks of severe hypertension accompanied by headache,



palpitations and sweating caused by intermittent release of catecholamines². They are characterized by the classic triad of features composed of headache, diaphoresis and tachycardia (with or without palpitation). However, this presentation is not mandatory, occurring in only 24% of the cases³. The concomitant presentation of these three symptoms associated with arterial hypertension has a diagnostic specificity greater than 90%⁴. Despite the low prevalence of induced hypertension by paraganglioma in the general population, hypertension is the most frequent cardiovascular manifestation, present in about 90% of patients with these tumors and usually it is persistent hypertension⁵. The annual incidence of pheochromocytomas is located between 500 and 1600 cases per year, with an equal sex distribution and peak in the fourth and fifth decades of life⁶. Paragangliomas affects approximately 0.1% of individuals with hypertension⁵. Most paragangliomas are benign, however a few of them are diagnosed with metastasis and in this case patients five-year survival rate is between 40% and 77%, with a progression-free survival period that ranges from 4 to 36 months⁷. It is now well established that there are several factors correlated with an accelerated disease progression, including male sex, diagnosis at an old age, synchronous metastasis, bigger tumor size, increased dopamine level, and failure to remove primary tumor⁵. Diagnosis is made through a combination of laboratory and imaging tests. Paraganglioma is diagnosed through the analytical evidence of excessive production of catecholamines or their metabolites. Adrenaline and norepinephrine are metabolised by catecholamine-O-methyl transferase into metanephrine and normetanephrine, respectively (inactive metabolite). Consistently metanephrine measurement in both plasma and urine is an excellent diagnostic method and is currently recommended as an initial method of diagnosis, according to the recommendations of clinical practice of the society of endocrinology (JCEM 2014)⁸. Imaging Methods are used for diagnostic confirmation in order to locate and evaluate the tumor mass anatomically and functionally, allowing subsequent planning of the therapeutic approach. We present a patient with an extra-adrenal retroperitoneal paraganglioma at an unusual site located using PET CT scan and show that surgically hypertension can be cured.

CASE PRESENTATION:

A 30 year old female patient was admitted to the hospital for left sided abdominal pain. The patient gives history of attacks of left sided abdominal pain since 2 years, previously 6 months back she had an attack of pain abdomen, associated with head ache, palpitation and excessive sweating with systolic bp of 180 mm Hg and was hospitalised for 2 days [persistently bp was >160/100 mm Hg] and was started on tab losartan-h and metoprolol. On present admission CT scan of abdomen and pelvis was done which showed 40 *43 mm well defined heterogeneously enhancing isodense mass lesion involving the retroperitoneum on the left



side inferiorly to the left ureter, inferior to the inferior pole of left kidney with mild peritoneal fat stranding and compressing the left proximal ureter. USG guided FNAC was done which showed clusters of round to polygonal cells (some Plasmacytoid) with indistinct cell borders to abundant pale, finely granular to fibrillar cytoplasm with conspicuous reddish granules on Romonowsky stain in few cells with background composing of RBCs suggestive of benign round polygonal cell tumor probably of neural origin. Hence, diagnosis of retroperitoneal paraganglioma was done. Free plasma normetanephrine, 3-methoxytyramine and VMA was done and was found to be elevated (TABLE 1) and thus rare diagnosis of functional retroperitoneal paraganglioma was made. The extent of the disease was evaluated with Ga-68-Dotanoc pet scan. With the patient fasting for 3 hours, 3.5 mci of Ga-68-Dotanoc was injected intravenously and 3D PET CT scan was performed. Physiological concentration was seen in the adrenals, spleen, kidneys, liver, thyroid & bladder. Ga-68-Dotanoc accumulation was seen in the mass in peritoneum [suv:16.4]. A polypoidal somatostatin receptor avid mass in retroperitoneum displacing the left ureter posteriorly and abutting the D3/D4 segments of duodenum (IMAGE 1). All other hematological and biochemical profile were within the normal range. Based on the above findings surgery was planned pre-operative optimisation of blood pressure (TABLE 2) was done for 1 week using prazosin and atenolol OD 25mg. Patient underwent excision surgery. Intra-operatively there was spike of BP with maximum of 210/140 mm Hg and was controlled with the use of esmolol and nitroglycerine. The excised specimen (IMAGE 4) was sent for HPE and it confirmed extra-adrenal paraganglioma. Post-operatively patient was stable.

TABLE 1.

IMAGE 1. PET CT scan of patient showing a polypoidal somatostatin receptor avid mass in retroperitoneum displacing the left ureter posteriorly and abutting the D3/D4 segments of duodenum.

IMAGE 2.

Left subcostal incision.

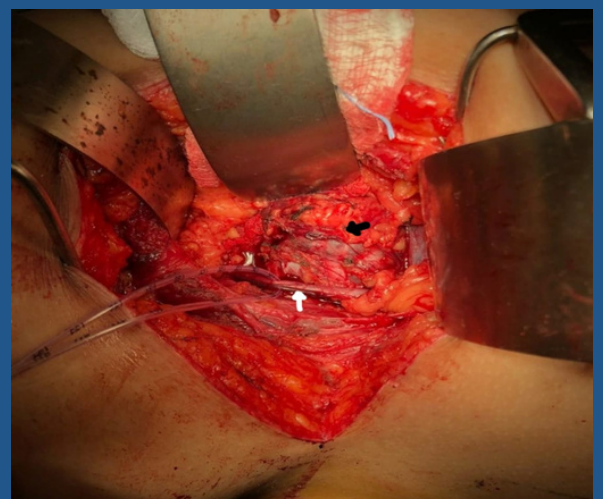
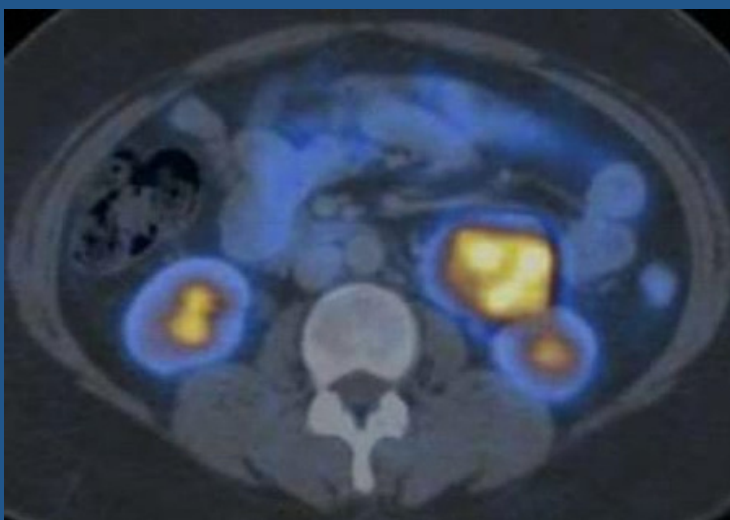


TABLE 2. Preoperative optimisation of blood pressure in patient with functional paraganglioma.



IMAGE 3.
Intraoperative photo showing retroperitoneal tumor inferior to inferior pole of left kidney (black arrow) and left ureter being secured with an infant feeding tube (white arrow).

IMAGE 4.
Specimen of 4 x 5 cm retroperitoneal tumor resected.

IMAGE 5. Post-op scar photo



INVESTIGATION	REPORT	LAB REFERENCE
Plasma free metanephrine	13.8 ng/l	7.90 - 88.70
Plasma free nor-metanephrine	1910 ng/dl ↑	20.10 - 135.40
Plasma 3-Methoxytyramine	28.7 mg/dl ↑	< 18.40
24 hr urine VMA	9.90 mg/dl ↑	1.60 - 7.30

TIME BEFORE OPERATION	MORNING BP supine standing	EVENING BP supine standing	MEDICATIONS
7 DAYS BEFORE	160/100 160/90	160/90 150/80	T.Prazosin 5mg 1-1-1-1 T.A ten 25mg 1-0-0
6 DAYS BEFORE	154/100 150/90	150/94 150/80	T.Prazosin 5mg 1-1-1-1 T.A ten 25mg 1-0-0
5 DAYS BEFORE	154/90 150/90	150/90 140/90	T.Prazosin 5mg 1-1-1-1 T.A ten 25mg 1-0-0
4 DAYS BEFORE	134/80 140/90	120/80 120/70	T.Prazosin 5mg 1-1-1-1 T.A ten 25mg 1-0-0
3 DAYS BEFORE	130/94 136/84	120/90 122/80	T.Prazosin 5mg 1-1-1-1 T.A ten 25mg 1-0-0
2 DAYS BEFORE	124/90 128/84	130/90 134/80	T.A mlodipine 5 mg 1-0-0
1 DAY BEFORE	130/90 130/80	120/80 120/76	T.A mlodipine 5 mg 1-0-0



DISCUSSION:

Tumor resection is the gold standard treatment for disease related to paraganglioma and is the only surgically curative therapeutic modality⁹. Open surgery especially in cases of invasive disease is preferred over laparoscopic approach to ensure complete tumor resection, to prevent rupture and to avoid local recurrence, constituting the preferred approach⁸. In non-metastatic paragangliomas, the five-year survival rate is higher than 95%⁹. In fourth edition of WHO's Classification 2017, it is admitted that paragangliomas have some metastatic potential¹⁰. It is to be understood that paragangliomas have the potential to metastasize, sometimes many years after diagnosis¹¹. The mutation in the SSH subunit b gene is the one that poses the greatest risk of development of metastatic disease¹². There are other risk factors for metastasis - including tumor mass greater than 5 cms, advanced age at the time of diagnosis and tumours with a high dopamine production¹³. Histological evaluation and immunohistochemical study are not truly predictive of tumour behavior in the long form, however in retrospective studies, some common characteristics were identified¹⁴. There are five main parameters: invasion (vascular or peritumoral soft tissue), architectural variations (diffuse, irregular, confluent growth), cytological variations, necrosis and activity proliferation (atypical mitosis, proliferative index) identified by the grading system for paragangliomas whose result allows the assessment of the risk of metastasis and possibility of survival¹⁵. After the development of metastatic disease, the survival rate five years after diagnosis varies between 34% and 60% ; however there are many cases with an extremely aggressive evolution awaited with two- to four- year survival period, as well as cases of patients with indolent evolutions that survive 20 years or more after diagnosis. In these cases therapeutic approaches are limited and are mostly palliative. Clinical practice of society of endocrinology 2014 recommends follow-up with all patients with paragangliomas regardless of the risk of recurrence initially estimated⁸. Which must be annual, with biochemical profile control in order to ascertain the presence of persistent, recurrent or metastatic disease⁹.

CONCLUSION:

Data about clinical features and surgical management of extra-adrenal retroperitoneal functional nonmalignant paragangliomas are variable and limited. Our patient had rare interesting case of paraganglioma in unusual site which was functional causing secondary hypertension and was cured of hypertension with surgical measures and hence the important role of surgery in curing secondary hypertension .



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WHAT DOES A SURGICAL PATHOLOGIST EXPECT FROM A SURGEON

Communication between the clinician and the Pathologist plays a very important role in accurate diagnosis. We pathologists sitting within the 4 walls of our lab, require complete clinical details, to get a clear view of what is expected from his/her report. It is therefore imperative that the surgeon provides the same.

Writing the Test request Form- The most basic requirement for a pathologist, esp a Histopathologist is a proper request form containing details like age and gender, site of biopsy, type of surgery, laterality (left or right) , whether pre-op therapy given, radiological findings etc. At times, even basic information like age and gender will be lacking, leaving it to the imagination of the pathologist.

Pre Op NACT for breast cancer should mandatorily be mentioned. If not, we may keep on hunting for the tumor in the breast, in vain, wherein complete response has occurred. In microscopy also, we need to mention the response score, for which clinical history is important.

At times, request form filling up job is left to the junior most surgical resident or a fresher or an intern. They may not have an idea of the importance of this activity. Often we receive one long page written by junior doctors, mentioning in detail the bed number, ward number, Unit number, IP number, Dear Sir, Thanking You, Yours sincerely, etc etc.... without a single mention of the site or type of surgery.

Of course, we do receive request forms, who not just fulfill our requirements, but go even one step more by drawing beautiful illustrations. This reminds us of our Medical college days and histology diagrams or even our 12th grade school biology practical records. The other frustrating request form is scribbled or illegible writing. We waste lot of our time, trying to decipher and one of us, Smart Alec, will crack it, much to the amusement and relief of the reporting pathologist.

If there are more than 1 containers for sending the biopsy, it is required to label the containers correctly and write the same on the request form. Sometimes, they don't match and it is left to the imagination of the pathologist to correlate microscopy with bottle labelling.

There are few surgeons, who not only sign the request form but also write their full name with mobile number. The pathologist is thrilled with these kind of surgeons and silently bless them. It becomes very easy to communicate, if required or if additional IHC has to be added or any special stains to be done.



However the best request form, a pleasure for the pathologists, is the one where the surgeon mentions that FNAC was done, with the reference number and date of FNAC. This enables the pathologist to do a cyto-histo correlation. This is an important Quality indicator and also a requirement for Lab Accreditation.

Urgent reports may be required in few cases, esp if core biopsy or endoscopic biopsy has been done, which needs to be followed by a more radical surgery. The surgeon has to write URGENT in Bold and Caps, on the request form. The lab can take suitable action to process such tissue on a priority basis and release the report early.

Regarding adding Formalin to the tissue sample, it has to be added within 30 minutes (Cold Ischemia Time). 10% buffered neutral formalin to be used. If the Cold Ischemia Time is beyond 30 minutes, IHC markers may not work satisfactorily. Especially in breast cancers, ER, PR, Her2 is very important in treatment decisions and any autolysis that occurs due to improper fixation or delayed fixation, will in turn cause IHC to go for a toss.

If more than 1 tissue is added to the container, the surgeon has to mention this in the request form. Eg Appendix with Lymph node. If not, the pathologist may routinely gross the appendix and chances of missing the small node happily at the bottom of the container is high. Also, the surgeon may instruct his assistant to add both the tissues to the bottle, however the assistant may miss one of them. It is always better for the surgeon to personally monitor this activity.

Dichotomy or splitting of the tissue sample, to send it out to different labs, is definitely a No-No. In this process, the dimensions of the tumor or the lesion will be missed and if malignancy is focal, one lab may report as benign and the other lab may report malignant. Instead of this, it is always better to take a second opinion from the slides and blocks.

For Bone tumors, radiological findings are mandatory for the pathologist. Triad – Age/Gender/Location plus Radiology plus microscopy- all these 3 have to be taken into consideration prior to reporting bone tumours.

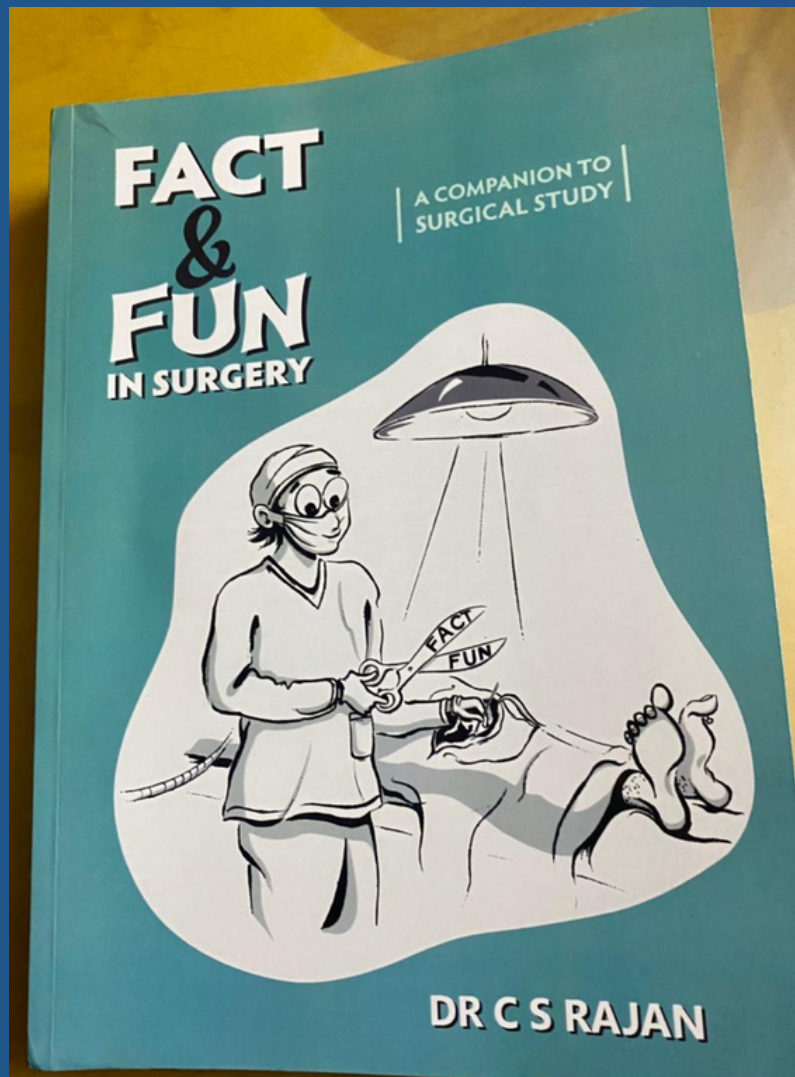
There are also surgeons who share per operative photos/videos of the lesions, with the pathologist. This is very useful for an accurate histopathology report. The pathologist is already well oriented with the specimen, is aware of the size, complexity, gross appearance of the mass, its relationship to adjacent structures, the intactness of the capsule and many other important findings.

During the discussion/interaction between the pathologist and the surgeon, the surgeon should feel free to ask for a review, within the team of pathologists in the lab or with colleague histopathologists who are experts in the sub specialty. He should also feel free to ask for deeper section, special stains like ZN Stain or a fungal stain etc. or may be even ask for special tests like IHC to be done.



In conclusion, effective communication between the surgeon and the pathologist goes a long way in accuracy of histopathology reports. The importance of a cordial and professional relationship, scientific interactions, meaningful discussions and exchange of information is the need of the hour. There should be no hesitation in picking up the phone from either of them, to have a frank discussion, if any discrepancies are observed or any information is not mentioned in the report or further clarification required. And the sooner done, the better. Lest, with the elapse of time, there may be loss of memory.

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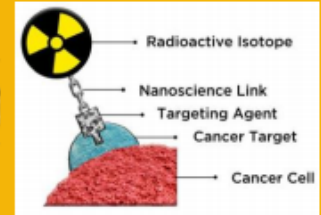
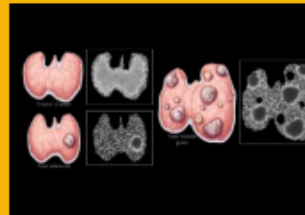
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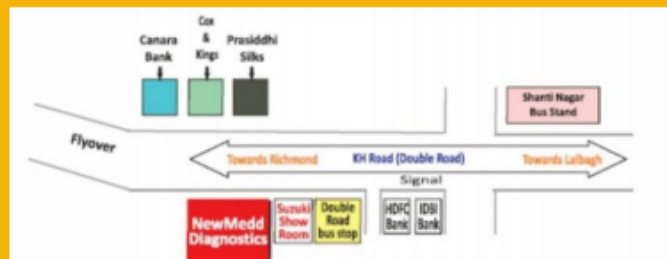
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