GEETANJALI UNIVERSITY

SPANDAN
Quarterly Medical Bulletin

Vol. 4 Issue 5 e-mail : editorbulletin@geetanjaliuniversity.com Oct. - December 2016

HIGHLIGHTS

GIANT PEDUNCULATED FIBROVASCULAR POLYP OF THE OESOPHAGUS: A CLINICAL AND RADIOLOGICAL ENTITY

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Dr. Ravindra Kundu

Case Report

We report a case of a 29-year-old woman with a giant fibrovascular polyp (FVP). She presented with spectacular clinical presentation of progressive intermittent dysphagia to solids of one year duration .No history of hematemesis, regurgitation of food, chest pain, haemoptysis or asphyxia,. She had lost more than 12 kg over the last 10 months. General physical and systemic examination was normal. Her haematological and biochemical parameters in blood were normal.

Diagnostic Work-up

A Computed Tomography (CT) scan of the thorax was performed revealing a large endoluminal soft tissue mass attached at the level of the cervical esophagus by a pedicle, near the region of the cricopharyngeus muscle. The lesion had an elongated sausage-shape, extending into thoracic oesophagus, with a longitudinal diameter of approximately 15cm. It was largest in its inferior portion, measuring approximately 5 cm in width. There were no signs of infiltration of the surrounding structures. CT scan of the thorax with oral contrast (Fig. 1A) showed a smooth-walled lobulated mass lesion attached to the right posterolateral wall of the cervical esophagus. It showed patchy enhancement at a few areas. A sleeve of positive oral contrast could be seen around the mass, confirming its intraluminal location. The lesion was endophytic with no distortion of the esophageal wall.Magnetic resonance imaging was done (Fig 1B & Fig. 1C), which showed a smooth elongated intraluminal lobulated T2 heterogenous mass lesion filling the entire length of the thoracic esophagus; the gastroesophageal junction was not involved .

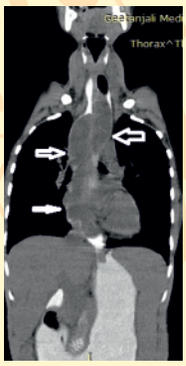


Fig 1A: Coronal CT scan of the thorax with oral contrast shows a large intraluminal lobulated hypodense soft tissue mass (arrows) expanding the lumen of oesophagus. The lesion was endophytic with no distortion of the esophageal wall; the gastroesophageal junction was not involved

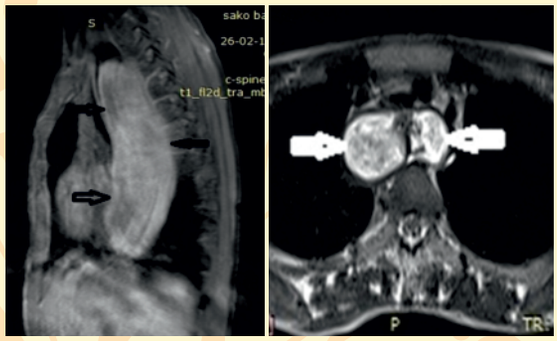


Fig 1B: Saggital contrast enhanced fat saturated T1 weighted MR image shows heterogeneously enhancing lobulated expansile mass (arrows) extending from cervical oesophagus downwards upto distal third of thoracic oesophagus.

Fig 1C: Axial T2 weighted MR image shows heterogeneously hyperintense abnormal intraluminal lesion (arrows) filling lumen of oesophagus.

Based on these findings, the diagnosis was more in favour of a benign oesophageal tumor. Excision was performed through a cervical esophagotomy and specimen was subjected to histopathological examination. Postoperative recovery was uneventful and she was completely relieved of her symptoms.

Discussion

Large pedunculated fibrovascular esophageal polyps are rare benign, pedunculated, intraluminal, submucosal, neoplastic lesions of upper digestive tract ,identified with a frequency of only 0.5%. They represent approximately 0.03% of all esophageal and hypo pharyngeal neoplasms. There are about 30 case reports in the literature in the last 38 years.Based on their predominant histological component ,they are also termed as fibromyxoma, fibroma, fibrolipoma, angiolipoma or fibroepithelial polyps. Clinical presentation most commonly includes dysphagia, foreign body sensation, weight loss and regurgitation of the mass.If left untreated the patient may develop polyp aspiration complicated by fatal asphyxiation. Diagnosis is established with endoscopy. But, it may be totally missed at endoscopy because the polyp is covered by normal mucosa and can be easily displaced. The endoscopic ultrasound may be useful as adjunct imaging examination, since it provides information about the size and origin of the lesion on the vascularization of polyps. FVPs containing abundant adipose tissue may appear at CT scan as soft-tissue-attenuated lesions (abundant fibrovascular tissue) with a

Desk of the Dean

This issue of Spandan is rich with case reports, scientific articles and reports of major events organized at Geetanjali University (GU). I congratulate and thank the contributors for enriching this issue of Sapandan. I wish and hope that more faculty members and students share their research and clinical work.This bulletin has wide circulation within and outside the university. My best wishes to the editorial board. Sapandan strives to be the flag bearer of GU.

paucity of fat that expand the lumen of the oesophagus. CT and Magnetic resonance imaging (MRI) are more accurate in evaluating these lesions . This is considered adjunct tool which may be useful both for diagnosis and for surgical planning. Prior to surgery, it is important to ascertain the site of origin, size and vascularity of the polyp, as it aids in planning the surgical approach. For hypopharyngeal and oesophageal polyps of less than 2 cm, endoscopic removal with ligation or electrocoagulation of the pedicle may be carried out. For complete surgical excision, the cervical approach is used for larger polyps or for those with a thick, richly vascularised pedicle. The possibility of life-threatening asphyxiation due to airway obstruction,especially in pharyngeal polyps, is an important concern and should be considered when managing this condition.

BIDDING FAREWELL TO PROF H.N. MATHUR

Prof (Dr.) D.M. Mathur, Head, Department of Psychiatry, GMCH

Dr. Harish Mathur, Professor of Community Medicine, left Geetanjali Medical College & Hospital on 30th September 2016, after superannuation. He has left the institute with fond memories which we shall cherish till time immemorial.

Dr. Mathur joined this institution in the year 2007 after having taught for almost 30 years at other medical and dental colleges. He was among the very first faculty members of GMCH and has been instrumental in setting up of teaching and training facilities at the institute in general and at the department of community medicine in particular. He has seen the institute grow to the present height. Under his able leadership, the department of community medicine has trained four undergraduate and three post-graduate batches of students. The department received affiliation and recognition from the Medical Council of India for these post-graduate seats during his tenure.

Dr. Mathur was awarded the MBBS (1969) and MD in Community Medicine (1976) degrees from the RNT Medical College, Udaipur. After graduation he joined rural services where he came across the pathetic sanitary and health conditions in the rural areas which prompted him to pursue specialization in preventive and social medicine. He has been a good cricketer and sportsperson. He has earned respect and love as a popular teacher. Dr. Mathur shall be missed, equally by the students, fellow faculty members and by every person in GMCH. We wish him the best of health, quality time and all the goodness in life.

Editorial

Warm greeting and the very best wishes,

I am sure our readers must be enjoying the pleasant nip in the air as we bid farewell to the years 2016 (year of monkey as per Chinese sign of Zodiac) and ring in the year of "Rooster" i.e. 2017. Not to sound pompous but roosters have qualities of being observant, hardworking, resourceful, courageous and talented, also they are very confident of themselves, my prayers, these all be bestowed on we all.. Amen.

Let me confess at the outset that for me it is a herculean task to fill in the shoes of my illustrious predecessor Prof (Dr.) H.N. Mathur. I have picked up the gauntlet expecting a whole hearted, generous support from one and all. In the ensuing process my 'brief' as I am given to understand is explaining, interpreting, collating all the happenings with a tiny dash of criticism and dollops of persuasion & praise thus enabling readers to make *Spandan* a decent good read. The strong panel of patron, advisors and members of editorial board shall make me confident in my endeavors.

Writing is not life but I think sometimes it can be way back to life. Each one of us has points to ponder and food for thought and I request you to directly mail all that directly to our website mailto: editorbulletin@geetanjaliuniversity.com via Gmail. I assure you our team will pick it up and put in proper perspective. Also your feedback is precious for us, so please do that.

As our Institution matures with reinforced rock solid foundation, we move towards totally independent and a fiercely transparent and credible, undergraduate & post graduate system of medical education and evaluation.

A whiff of fresh air emanates from the students pursuing Post Graduates education in our institution. I intend to give them a clean platform in *Spandan* to splash in with their experiences, feelings, achievement and laurels, as they will be our torch bearers and dream merchants in times to come.

Signing off my column with the noting of a famous yester years golden guitarist and noble laureate Bob Dylan as it continues to inspire me to search for answers related to life, peace, progress and tranquility.

"How many roads must a man walk down, before you can call him a man, How many seas must a white dove sail before she sleeps in the sand, The answer my friend in blowing in the wind. The answer is blowing in the wind." **– Bob Dylan**

Happy Reading and Keep writing Friends

Editor-in-Chief

Prof. (Dr.) Sunanda Gupta

STRANGE BEDFELLOWS!

Invited Article

Prof. (Dr.) Sunanda Gupta, Professor and Head, Department of Anaesthesiology, GMCH

Everyone has a funny bone or sense of humour, a la Mrs Twinkle Khanna! It just needs activation or a motivation to write…as I am doing today on pressures from a surgeon friend. Talking about surgeons, let's talk about our dear arch rivals/friends who dominate an anaesthesiologist's life both in the operation theatre and at the homefront, especially if one has a spouse for a surgeon! and though this particular idiom may have been invented by Shakespeare in the Tempest (2:2) "Misery acquaints a man with strange bedfellows" but it is so very apt to describe the surgeon anaesthesiologist relationship.

Our tempestuous stormy camaraderie is deeply rooted in a love-hate relationship wherein we both cannot do without each other's constant nagging. Mornings in a SA couple's house starts with instructions to get the breakfast ready in time, limited morning appointments to patients and even the poor Labrador has to forgo his morning walk with the master to Fateh Sagar ..as it is the master's operating day!

Every surgeon enters the operation theatre with the hair on his neck bristling….ready to meet his opponent in the wrestling arena..the anaesthesiologist! Will he or will he not postpone my case? ….that is uppermost in his mind and he is all ready to fight tooth and nail if the anaesthesiologist even says the first letter of the word `UNFIT`. According to the surgeons, fitness for anaesthesia is a meaningless term, anyone who can lie supine, should be fit for anaesthesia! …Grrr but can he withstand your onslaught of surgery? That is a different matter really!!

Enter the operation theatre, where a thyroidectomy is posted and lets look at the sequence of events. As the anaesthesiologist, readies his paraphernalia ..the surgeon gives a pep talk to the patient: don't worry at all, your anaesthesiologist will give you one injection and put you to sleep and I will take exactly 15 min to remove your thyroid. And that is where the anaesthesiologist starts seeing red…what about the muscle relaxant, the apnoea, the intubation, the ventilator, the reversal and extubation? Post surgery, the patient goes out and tells his relatives the surgeon was so good, he did the whole operation under one injection of Diazepam!

There are constant instructions coming your way,give general anaesthesia not spinal, don't give too much anaesthesia (as if Modi is giving us an incentive for giving more general anaesthesia!) keep the heart rate less than 100, BP less than 90, relaxation is not adequate give 2 mg extra atracurium, increase the dose of sevoflurane, where is the senior anaesthetist? I don't like the colour of the blood, why is it bleeding so much? (Oh my God, keeping rebuttals under control is a herculean task for the anaesthesiologist, I am sure!). And our dear friend has to keep a constant eye on the patient monitor…feel like telling him....why don't we switch positions?

You can make out when the surgeon has landed himself in a soup: he starts snapping at the nursing staff, cursing the assistant for slipped ligatures, throws the non-working artery forceps on the ground, screams at all and sundry to increase the coagulating and cutting power of the cautery, more gauze pieces, more surgical mops...order multiple light adjustments, with instructions to focus the light on the surgical field and not on his head! And you learn early on during your anaesthesia residency, that the most opaque structure in the OT is the surgeon's head!! I always prefer to have a screen between the surgeon and me..the so-called blood-brain barrier: they are the blood and we are the brains!

And then starts the blame game....causes of increased bleeding intraoperatively in the surgeon's textbook includes high doses of inhalational anaesthetics, hypoxia, hypercarbia, patient feeling pain, patient not well relaxed, and senior anaesthesiologist having coffee outside the OT…Ask any surgeon about their anaesthetist and they will whine...oh they just sit around having coffee while we sweat and slog inside the OT! And that is why I suspect green coffee came into the market!!

But merciless surgeon-baiting is so much rewarding (but of course when he has caught the offending artery!) like asking him if he needs me to google the next operative step or should I order for dinner to be served in the OT or worse will he finish before the next episode of "mere pyare deshwasiyon" is aired?

We have to get used to being invisible as an anaesthetist. A large percentage of the public has no idea that we're medically qualified. Patients always remember the name of their surgeon, never that of their anaesthetist. But it's still a hugely rewarding job. We're everywhere in the hospital and apart from the operation theatres, we have branched out as intensivists, pain specialists and emergency physicians (partly because the surgeons thought we could not survive without them!).

And as I sign off....I can't resist a parting jibe at my surgeon friends…" Anaesthesia is the half asleep watching the half awake being half murdered by the half-witted"

Dr Rahul Kumar Sharma

FIVE INTERESTING CASES IN CLINICAL DERMATOLOGY

Dr Rahul Kumar Sharma, MBBS, D.D.V.L(SRMC), MD (DVL) CMC Vellore, Fellowship In Dermatosurgery (Delhi), MIADVL, Assistant professor dermatology, GMCH

The eyes see what the brain knows is the fundamental working concept of the clinical science of dermatology. Skin diseases are associated with a significant impairment in the quality of the patient's daily life and can also be associated or complicated by internal organ involvement. This article of mine is portraying the ability of our well equipped competent dermatology department at GMCH to identify and treat the world's most deadly and rare diseases which were earlier considered incurable. The following cases of mine were seen in last few months in our department.

First case: Botryomycosis is a rare chronic, granulomatous,

suppurative bacterial infection involving the skin and subcutaneous tissues. This is the first case report of vulval Botryomycosis in Asia .55 year old married female presented with a multiple non-healing, tender fluid filled cystic vesicles in the vulval region for 6 month . Biopsy revealed granulomatous inflammation and botryromycotic colonies. Further culture of tissue samples on blood agar and Mc conkey agar revealed the presence of beta hemolytic colonies of pseudomonas aeruginosa and coagulase positive staphylococcus aureus which was favouring the diagnosis. She was treated with antibiotics as per antibiogram for 12 weeks with wonderful response.

Second case: Generalized bullous Fixed Drug Eruptions (FDE) is very rare type of extensive form of fixed drug eruption characterized by multiple, large, ill - defined, dull, purplish - livid patches, at times with flaccid blisters. This disease can be lethal if not diagnosed in time as it can mimic or sometime progress to TEN like condition and should be treated meticulously. Medical history reveals drug intake and prior episodes of lesions at the same sites. A 62 year old female presented with large dark bullous lesions all over body with false positive Nikolsy's sign.The diagnosis of generalized bullous FDE due to Metronidazole was made. She was treated with systemic corticosteroids, topical antibiotic creams and barrier nursing.

Third case: 24 year old man presented with large genital warts(giant condyloma acuminata caused by HPV virus) over glans penis, coronal sulcus, prepuce and urethral meatus for the last eight months. He was disappointed with the disease as it was no responding to the treatment taken at multiple places. He was depressed to the level that he even thought of committing suicide as he was newly married and these large recalcitrant warts were affecting his married life. I treated him with multi-staged controlled cryotherapy every 3rd day and oral retinoid for 8 weeks. He got complete resolution of lesions. There is no proper protocol for such types of lesions in the available literature.

Fourth case: Darier disease affects males and females in equal numbers.This autosomal dominant genodermatosis usually becomes apparent during the second decade in life. It occurs due to mutations of ATP2A2.The patients with this disease can subsequently develop neurological symptoms, chronic renal failure, cardiac diseases, skin failure, herpetic and fungal infections if not diagnosed or treated in time. A 24 year old man ,farmer by occupation, presented with multiple dark warty lesions in the seborrheic areas since 5 years of age with slow progression over a period of 10 years.This disease is considered incurable as per available literature. But after making the diagnosis of Darier disease a new therapeutic protocol was designed and tailored by me according to the patient need and affordability. After two weeks of initiation of therapy he started getting wonderful results.

Fifth case: Kaposi varicelliform eruption (KVE) begins as a sudden eruption of painful; edematous; often crusted lesions or erosions in areas of the preexisting dermatosis like atopic dermatitis caused by Herpes virus. A delay in diagnosis often occurs because the eruption is confused with the underlying disease by inexperienced eyes. Six months baby with history of atopic dermatitis presented with crusted erosions over the face and trunk for 10 days with no improvement. His condition was misdiagnosed elsewhere as fungal and bacterial infection. The diagnosis of KVE was made on the basis of typical clinical presentation with underlying atopic dermatitis. It was confirmed with positive Tzanck's smear. He was treated with Acyclovir for 7 days with complete resolution of lesions. It is imperative to diagnose this condition early as it can lead to severe systemic complications and can be lethal if steroids are used for treatment.

Figure 1
Botryomycosis

Figure 2
Generalized bullous FDE

Figure 3
Giant condyloma acuminata

Figure 4
Darier disease

Figure 5
Kaposi varicelliform eruption

Dr. Aruna Pancharia

CUTANEOUS FILARIASIS: A RARE PRESENTATION CONFIRMED USING FINE NEEDLE ASPIRATION CYTOLOGY

Dr. Aruna Pancharia[1] & Dr. Narendra Mogra[2] , [1]Assistant Professor & [2]Professor and Head, Department of Pathology, GMCH

Introduction

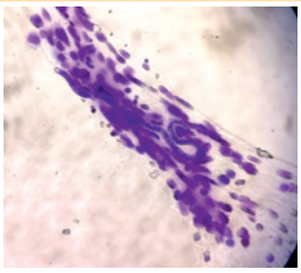
Filariasis is seen in tropical countries especially in India. The usual means of detecting the parasite is by examination of peripheral blood. The agent is a nematode parasite of the order Filariidae, commonly called filariae. They are usually classified according to the final habitat of the adult worms in the human host viz., cutaneous group, lymphatic group and body cavity group. Fine-needle aspiration cytology (FNAC) is uncommonly used for its detection. It has always been detected incidentally, while performing FNACs for evaluation of other lesions. Here we present a rare case of cutaneous filariasis at lateral aspect of arm diagnosed by FNAC.

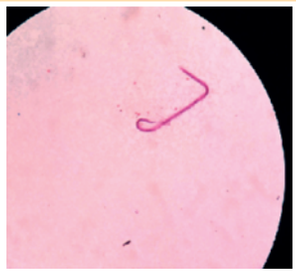
Case report

A 23 year old gentleman from Bihar presented to the general surgery outpatient department with a painless swelling in the right arm since a month. The patient had no other symptoms and the history was otherwise unremarkable. The examination was unremarkable except for a soft, non-tender and movable subcutaneous swelling in the right elbow of size of about 1.5cm × 1 cm was noted. A clinical diagnosis of neurofibroma was made by the surgeon. Hematological (including eosinophil count) and biochemical investigations were within normal limits.

The patient was referred to the department of pathology for FNAC of the swelling, which yielded blood mixed aspirate. Smears revealed

polymorphous cell population of small and large lymphoid cell along with numerous ensheathed coiled and slightly curved microfilarial larvae having granule in central axis while tail tip was free from granule which indicates the organism is Wuchereria bancrofti (Figures 1 and 2). A cytological diagnosis of microfilaria with chronic inflammatory reaction was made. Patient was subjected to nocturnal blood examination, but no microfilariae were found on three consecutive nights.





Figures 1 and 2: Straight and curved microfilaria with lymphoid cells in the background (fields and PAP stain -40X)

Discussion

Filariasis is a major global health problem and the disease is endemic in India with heavily infected areas found in Uttar Pradesh, Bihar, Jharkhand, Andhra Pradesh, Orissa, Tamil Nadu, Kerala and Gujarat. The subcutaneous filariasis is mainly caused by L.loa, O. volvulus and Mansonella streptococca; of which, L. loa is found in both peripheral blood and subcutaneous nodule; and the other two found only in the skin. In this case, Wuchereria bancrofti presented as subcutaneous swelling, is a rare presentation. It's typical presentations are elephantiasis, chronic lymphoedema, epididymitis, funiculitis and lymphadenitis.

The diagnosis of filarial infection in symptomatic cases with typical clinical presentation is often easy and straightforward, but demonstration of microfilariae in circulating blood is the only conventional means by which one can make definite diagnosis. Unfortunately, in endemic areas, a majority of the affected individuals remain asymptomatic with continued disease transmission. Regardless of high incidence of this parasite in an endemic zone, microfilaremia is often absent and presence of microfilariae in cytological smears and body fluids is an incidental finding. The absence or transient microfilaremia in these endemic zones further complicates the detection of the disease. Microfilaria displays nocturnal periodicity. Therefore, three consecutive night blood samples are commonly used for its detection but are considered less sensitive tools for its diagnosis. Circulating filarial antigen (CFA) detection test is now regarded as the gold standard and demonstration of parasite in histopathological sections. In the present case, the patient belongs to an endemic area for filariasis explaining the lack of clinical symptoms and the amicrofilaremic state. The majority of cases in endemic regions neither show microfilariae in blood, nor any symptom. The absence of eosinophilia in this case is supported by literature which suggests that there is no consistent relationship between filarial infection and eosinophilia.

This case report highlights the value of FNAC in the assessment of a swelling in the lateral aspect of arm, which is an uncommon site for lymphadenopathy. A patient presenting with a swelling and history of migration from endemic area, even with amicrofilaremia and normal eosinophil count should be subjected to FNAC and ELISA for filarial antigen. This would undoubtedly aid in initiating timely effective anti-filarial drug treatment.

Dr. Pankaj Saxena

HUGE RETROPERITONEAL LIPOSARCOMA - REMOVED SUCCESSFULLY

Dr. Pankaj Saxena[1], Dr. Abhilekh Tripathi[2], Dr. P.N. Mathur[3] and Dr. Rohan Jain[4]
[1]Professor & Unit Head, [2]Assistant Professor, [3]Professor and [4]Resident, Department of General Surgery, GMCH

A 30 year old lady presented with complaints of enormous distention of abdomen developed for last 3 years and anorexia and constipation generlised weakness. The patient had undergone hysterecetomy 1 ½ years back. She was admitted in female surgical ward of GMCH in January 2017 for detailed evaluation. The CECT of the abdomen revealed abdomen a huge well defined fat density tension with internal enhancing soft tissue component and enhancing septations causing mass effect. Right kidney parenchymal thickness was 6mm with hydronephrosis due to extensive compression. A provisional diagnosis of Retroperitoneal liposarcoma (RPS) based on the findings of CECT.

The patient underwent an exploratory laparotomy. On exploration, it was found that the huge retroperitoneal mass was enveloping right kidney and ureter throughout its length. In the kidney cortex was thinned out due to compression.The tumor was encapsulated, almost sitting on inferior vena cava and had large feeding vessels which were clipped and cut. The tumor was removed enbloc successfully which weighed about 30 kgs and measured 40x40x16 cm (Figure 1). Right nephrectomy was performed (complete compartment resection).

Histopathological report revealed well differentiated liposarcoma grade –I (T_2B, N_0M_0GI) with resected margins free of tumor. Patient had an uneventful post operative period and was after removal of sutures.

Discussion

RPS generally present as large masses. They typically do not produce symptoms until they grow large enough to cause compression. Early satiety and obstructive gastrointestinal symptoms may occur. Radio-imaging techniques are helpful in the confirming the diagnosis. Surgery is the choice of treatment. Complete compartment resection is done.

In an analysis of 500 patients with RPS treated at memorial Sloan-Kettering Cancer Center, The median survival times was 103 months for those who underwent complete resection versus 18 months who had in complete resection or observation without resection.[3]

Adjuvant therapy: Surgery is not justified for dedifferentiated RPS, because these tumors have high rates of distant metastasis and local recurrence. Most studies have failed to show a survival benefit from adjuvant chemotherapy for RPS.[4-5]

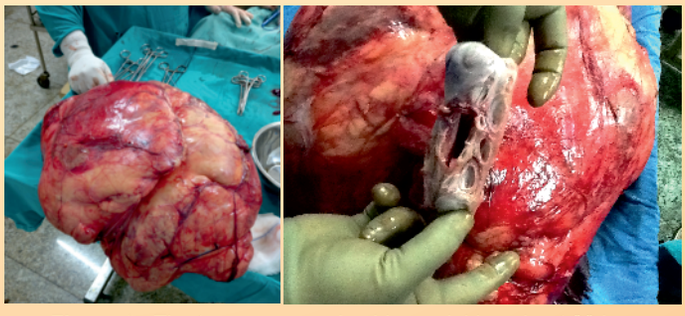


Figure 1: The tumor removed enbloc weighing about 30 kgs

Recurrence: For local recurrence, adjuvant radiation therapy has been proposed. However efficacies have not been established and that potential benefit of radiation therapy must be weighed against increased risk of treatment released toxic effects. In a follow up study at memorial Sloan-Kettening Cancer Centre, in well differential RPS, recurrence rate is 10 -25% as compared with de-differentiated RPS which are more aggressive and have more propensity for distant metastases.

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Dr. Shefali Mehta

GERIATRIC BIOCHEMICAL SCREENING PANEL

Dr. Shefali Mehta[1], Dr. Ashish Sharma[2], Dr. K. L. Mali[3]
[1]Post–graduate Resident, [2]Associate Professor, [3]Professor & Head, Department of Biochemistry, GMCH

By the year 2050 more than 20% of the world's population will be over 65 years of age. As the population ages, more clinical biochemical diagnostic resources will need to be directed towards the problems of the elderly population which can significantly increase average life expectancy and 'functional' life span.

Laboratory reference ranges are usually derived from populations of younger people, without significant illness or disability. As people get older, test results have different reference values as physiological changes result in variation of laboratory values. There are marked physiological changes in biochemical markers in the elderly, and as a consequence there are pharmacokinetic and pharmacodynamic changes. In elderly co-morbidity is the rule rather than the exception. The elderly are burdened with compromised organ functions and immunity, are usually on polypharmacy. These factors necessitate comprehensive biochemical assessment in a specialist geriatric medical setting.

Below the authors present the variations of reference values in GERIATRIC age group and their implications:

Comprehensive biochemical assessment panel in a geriatric patient

BIOCHEMICAL PARAMETER	NORMAL ADULT VALUE	NORMAL GERIATRIC VALUE	IMPLICATIONS for GERIATRIC POPULATION	
			DECREASE	INCREASE-
Serum iron	50-150µg/dl	60-80µg/dl	Iron deficiency anaemia, cancer (stomach, intestine, rectum, breast), bleeding peptic ulcers, protein malnutrition	hemolytic, pernicious/ folic acid anaemias, liver damage , lead toxicity
Ferritin	Male-15-45 ng/dl Female-10-235ng/dl	10-310 ng/dl	Iron deficiency, inflammatory bowel disease, gastric surgery	Metastatic cancer, leukemias, lymphomas, hepatic diseases, anaemias, acute & chronic infection, inflammatory tissue damage
Vit B12	200-900 pg/ml	150 pg/ml	Pernicious anaemia, malabsorption syndrome, liver disease, hypothyroidism	Acute hepatitis
BUN	5-25 mg/dl	8-28 mg/dl	Liver damage, low protein diet, overhydration, malnutrition	Dehydration, high protein diet, GI bleeding, pre renal failure
Creatinine	0.5-1.5 mg/dl	0.6-1.2 mg/dl	-	Renal failure, shock, leukemia, SLE, acute MI,CHF, diabetic neuropathy
Hepatic enzymes SGPT	10-45U/L	17-30U/L	Salicylates	Viral hepatitis, liver necrosis, CHF, acute alcohol intoxication
SGOT	10-45U/L	17-30U/L	Diabetic ketoacidosis	Acute mi, hepatitis, liver necrosis, musculoskeletal disease, trauma, pancreatitis, ca liver, angina pectoris , muscle trauma related to im injections
Alkaline phosphatase	20-130U/L	30-140 U/L	Hypothyroidism, malnutrition, pernicious anaemia	Ca, liver, bone, hepatitis, leukemia, healing fractures, multiple myeloma, rheumatoid arthritis, ulcerative disease
Gamma Glatamyl Transferrase (GGT)	Male- 4-23 IU/L Female- 3-12 IU/L	9-55 IU/L	-	Cirrhosis of liver, necrosis of liver, alcoholism, hepatitis ,cancer(liver, pancreas, breast, kidney, liver, lung)DM, acute MI, CHF, pancreatitis, cholecystitis, nephritic syndrome
Cholesterol	<200mg/dl	Male-increase by 30 mg/dl Female- increase by 55 mg/dl	Hyperthyrodism, starvation, malnutrition, anemia	Acute MI, atherosclerosis, uncontrolled DM, hypothyroidism, biliary obstruction, cirrhosis
HDL	Male- >45mg/dl Female- >55 mg/dl	Male-increase by 30% female-decrease by 30%	COPD	Increase- acuteMI, hypothyroidism, dm, multiple Myeloma, high fat diet
Triglycerides	Male- 40-160 mg/dl Female- 35-135 mg/dl	Male-increase by 30% female-increase by 50%	Hyperthyroidism, hyperparathyroidism, protein malnutrition, exercise	Acute MI, hypertension, hypothyroidism, nephritic syndrome, alcoholic cirrhosis, pancreatitis , high carb diet
T4-thyroxine	4.5-11.5 µg/dl	3.3-8.6µg/dl	Hypothyroidism, protein malnutrition, corticosteroids	Hyperthyroidism, viral hepatitis, thyroiditis, myasthenia gravis
Prostate Specific Antigen (PSA)	1.45 ng/ml	Ages- 50-59:0.0-2.45 ng/ml 60-69:0.0-6.3 ng/ml post radicalprostatectomy-0.0-0.3 ng/ml		Prostate cancer, benign prostatic hyperplasia

Kindly consult a specialist/desk reference for reference range values

Prof. (Dr.) Manjinder Kaur

MINI CLINICAL EXAMINATION (MINI-CEX): AN EFFECTIVE TOOL FOR WORK PLACE BASED ASSESSMENT (WPBA) FOR TRAINEE DOCTORS.

Prof. (Dr.) Manjinder Kaur, Head of Physiology Dept, Academic Officer cum Coordinator of Medical Education Unit.

Mini-CEX is a structured assessment of an observed clinical encounter. This "snapshot" is designed to provide feedback on skills essential to the provision of good clinical care.

It is effective for a quick formative assessment of the trainees and can be used for their overall clinical assessment. The ideal assessment through the mini-CEX is done by giving at least 8 encounters / resident/ year, ideally with each PG teacher/ evaluator.

Hence, a Mini-CEX involves a trainee being directly observed by an assessor whilst performing a focused clinical task during a specific patient encounter. The assessor rates and provides structured feedback on the trainee's performance in this specific instance. One such encounter is expected to comprise 10- 15 minutes of observation and 5-10 minutes of feedback.

Components that can be assessed in mini-CEX:

Mini-CEX includes seven rated question areas (see below) and provides free-text space for you to identify strengths, areas for development and an action plan. Not all question areas need be assessed on each occasion.[1]

	Question area	Positive indicators
1	History taking	Facilitates patient telling their story; effectively uses appropriate questions to obtain accurate, adequate information; responds appropriately to verbal and non-verbal cues.
2	Physical examination skills	Follows efficient, logical sequence; examination appropriate to clinical problem; explains to patient; sensitive to patient's comfort and modesty.
3	Communication skills	Explores patient's perspective; jargon free; open and honest; empathic; agrees management plan/therapy with patient.
4	Critical judgement	Makes appropriate diagnosis and formulates a suitable management plan; selectively orders/performs appropriate diagnostic studies; considers risks and benefits.
5	Professionalism	Shows respect, compassion, empathy, establishes trust; attends to patient's needs of comfort; respects confidentiality; behaves in an ethical manner; awareness of legal frameworks; aware of own limitations.
6	Organisation & efficiency	Prioritises; is timely and succinct; summarises.
7	Overall clinical care	A global judgement based on the above question areas

How to conduct Mini- CEX?

1. **The Encounter:** The Mini CEX encounter is planned by the evaluator or the trainee doctor where he examines the patient and he is in turn evaluated for one or more question areas (mentioned above). The teacher observes the trainee doctor throughout the encounter and gives his feedback in the prescribed format (figure 1). This response is then shared with the trainee and the constructive feedback is given to him. The feedback is signed by the both trainee and the evaluator.
2. **Completing the feedback form**

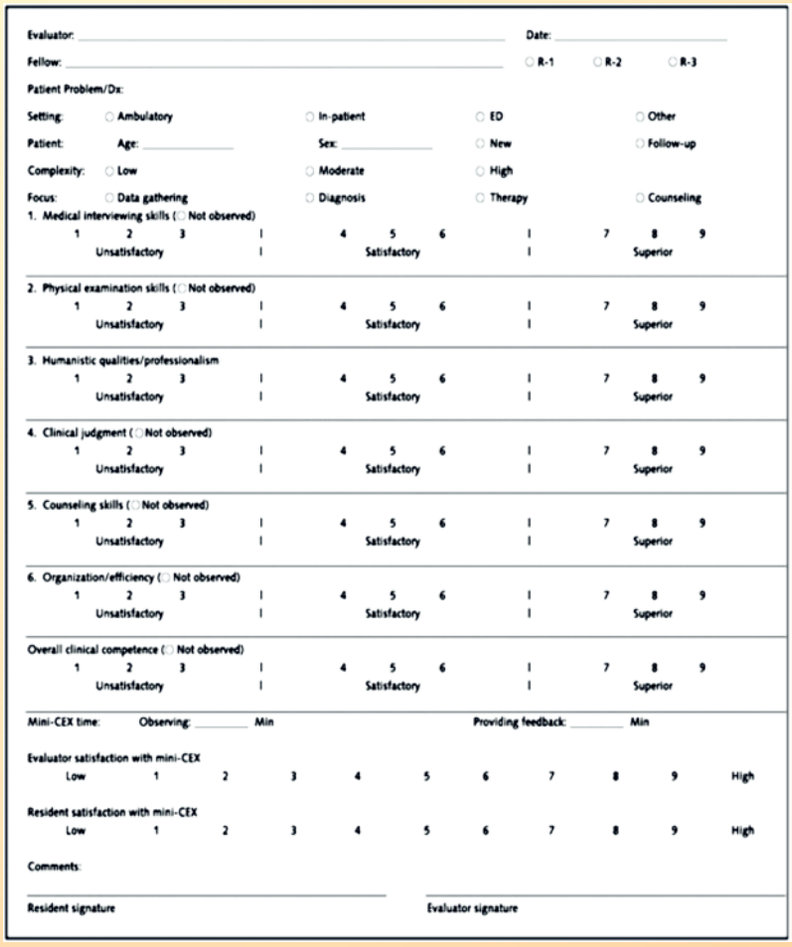
a. **Clinical setting**: select the most appropriate setting (OPD/ Ward)

b. **Clinical problem category**: these are based on the clinical areas described in the Curriculum.

c. **Focus of the clinical encounter**: select the most appropriate focus. Diagnosis should include an assessment of the trainee doctor's examination skills and their abilities to reach a provisional diagnosis.

d. **Complexity of case:** score the difficulty of the clinical encounter for a R1/ R2/R3 (Ist year/ 2nd year/ 3rd year resident)

e. **Rating Scales :** The rating is done on Likert scale from 1-9 on all the sub scales. Along with this, the rating for Assessor and Resident satisfaction. In case, any component is not observed in that particular encounter, it should be marked 'Not Observed'


Evaluator: _____ Date: _____

Fellow: _____ ○ R-1 ○ R-2 ○ R-3

Patient Problem/Dx:

Setting: ○ Ambulatory ○ In-patient ○ ED ○ Other

Patient: Age: _____ Sex: _____ ○ New ○ Follow-up

Complexity: ○ Low ○ Moderate ○ High

Focus: ○ Data gathering ○ Diagnosis ○ Therapy ○ Counseling

1. Medical interviewing skills (○ Not observed)
1 2 3 | 4 5 6 | 7 8 9
Unsatisfactory | Satisfactory | Superior

2. Physical examination skills (○ Not observed)
1 2 3 | 4 5 6 | 7 8 9
Unsatisfactory | Satisfactory | Superior

3. Humanistic qualities/professionalism
1 2 3 | 4 5 6 | 7 8 9
Unsatisfactory | Satisfactory | Superior

4. Clinical judgment (○ Not observed)
1 2 3 | 4 5 6 | 7 8 9
Unsatisfactory | Satisfactory | Superior

5. Counseling skills (○ Not observed)
1 2 3 | 4 5 6 | 7 8 9
Unsatisfactory | Satisfactory | Superior

6. Organization/efficiency (○ Not observed)
1 2 3 | 4 5 6 | 7 8 9
Unsatisfactory | Satisfactory | Superior

Overall clinical competence (○ Not observed)
1 2 3 | 4 5 6 | 7 8 9
Unsatisfactory | Satisfactory | Superior

Mini-CEX time: Observing: _____ Min Providing feedback: _____ Min

Evaluator satisfaction with mini-CEX
Low 1 2 3 4 5 6 7 8 9 High

Resident satisfaction with mini-CEX
Low 1 2 3 4 5 6 7 8 9 High

Comments:

Resident signature Evaluator signature

Figure 1: The feed back form for Mini CEX (obtained from American Board of Internal Medicine[2])

3. Giving a Feedback:

The feedback should be give based on 2x2 model of giving the constructive feedback.

a. Say few points on *"What was good in the encounter"*

b. Say few points on *"How it could have been better"*

Conclusion:

This WPBA tool provides quick feed back to the trainee doctor which allows him to improve in the desired area of performance gap. These feedback forms could be preserved to track the improvement of the trainee doctors in the course of their training.

References:

1. Mini Clinical Evaluation Exercise (Mini-CEX) Guidance for Assessors. Accessed from https://www.google.co.in/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=0ahukewjo2vabsnrrahwmpy8khaxzcm8qfggxmaq&url=http%3a%2f%2fwww.foundationprogramme.nhs.uk%2fdownload.asp%3ffile%3dguidance_-_mini-cex_guidance_for_assessors_100616finalv2.pdf&usg=afqjcnhxmvjusvm3gysvyumn0c2vgn9kmq
2. American Board of Internal Medicine [US]: https://www.abim.org/~/media/ABIM%20Public/Files/pdf/paper-tools/mini-cex.pdf

Dr. Archana M.S

BENIGN TUMOR GROWS AGGRESSIVE – A CLINICAL AND RADIOGRAPHIC EVALUATION

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Introduction

Benign tumors of the jaws represent new uncoordinated growth that often spread by direct extension and not by metastases. They have an insidious onset with slow growth potential, detected clinically by enlargement of jaws or are found during radiographic examination.

Ameloblastoma is one such true neoplasm of odontogenic epithelium which is a persistent, locally invasive tumor with benign growth characteristics. Aggressive and malignant forms also exist. It occurs more commonly in men with a wide age range. Though painless at the onset, an untreated tumor may grow to great size resulting in disfigurement and symptoms due to involvement of vital structures. It presents with varied radiographic features, leading to a challenge in diagnosis.

Here we report one such case of a benign jaw tumor in an elderly male patient, with bizarre radiographic appearance and aggressive growth with extensive involvement.

Case report

A 60 year old male patient reported to Department of Oral Medicine and Radiology, Geetanjali Dental and Research Institute with a complaint of swelling of lower jaw associated with pain since 15 years. History revealed that it started as a small sized swelling in left side of lower jaw which gradually increased in size and eventually associated with pain. Patient underwent biopsy for the same in the local hospital in his village and he was educated regarding its surgical removal but the patient failed to do so. The swelling progressed in size to the size on the day of presentation, over a period of 5 years extending to the right side of lower jaw. Medical history revealed that patient was an asthmatic since many years under medication and had also undergone cataract surgery. Dental history revealed extraction of multiple teeth due to pain.

The patient was poorly built and nourished with pallor, nail abnormalities and mild icterus. There was frank asymmetry of face, with slight reduction in mouth opening (Figures 1-3). However, no other pathological findings were noted in the TMJ. Bilateral submandibular and upper cervical lymph nodes were palpable (approximately 2 cm in size), soft to firm, tender and mobile. On extra-oral examination, bilateral asymmetric swelling was seen on the lower third of face at the body of mandible region, with ill-defined margins and measured about 3 cm in size on each side of mandible, extending below the inferior border of mandible with normal overlying skin. On palpation, swelling had a bony hard consistency and was non tender. There was paresthesia along the same region. Intra-orally there was obliteration of lower buccal vestibule in the region of canine, premolar and molar bilaterally, with buccal and lingual cortical plate expansion. Teeth missing were from second premolar on left side to first molar on right side.

Based on history and clinical findings, a provisional diagnosis of "Benign tumor of the mandible" was considered.

Intra-oral periapical radiographs irt 36, 37 and 46, 47, 48 revealed multilocular radiolucent lesion in the periapical region with external root resorption of the involved teeth. Mandibular occlusal radiograph in addition, showed expansion and destruction of buccal and lingual cortical plates with pathological fracture (differential bicortical expansion). The right lingual cortex showed more expansion with loss of trabecular bone and with locules containing radiopacities (resorbed bone remnants). Panoramic radiograph revealed an extensive expansile multilocular radiolucent lesion extending bilaterally in the mandible crossing over the midline , extending from the distal root stump of right 2nd molar till the opposite side angle ramus region. There was obvious expansion in the angle and body with thinned out inferior cortical border. The symphysis region showed lack of bone. There were areas of bony radiopaque remnants within the locules that had typically a large soap bubble pattern. This gave a radiographic impression on "aggressive benign bony tumor" (Figures 4 & 5).

Radiographic differential diagnosis of an Aggressive ameloblastoma, Aggressive central giant cell granuloma, Carcinoma in ameloblastoma was considered.

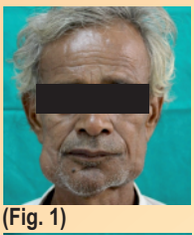
Computed Tomography also reported the lesion as an "Aggressive ameloblastoma with soft-tissue extension" (Figures 5 & 6).

Treatment plan suggested was enblock resection.

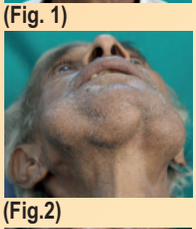
Extensive space occupying benign aggressive odontogenic tumors with higher frequency of recurrence though unusual can result in unprecedented complications including pathological fractures, haemorrage and damage to vital structures. It is imperative to detect clinical symptoms and signs at the earliest and correlate with the concomitant radiographic and imaging findings for early diagnosis and proper management to avoid complication and to prevent recurrence.

Acknowledgement - Department Of Radiodiagnosis, GMCH

CLINICAL PICTURES



(Fig. 1)



(Fig.2)

(Fig.3)

RADIOGRAPHS :

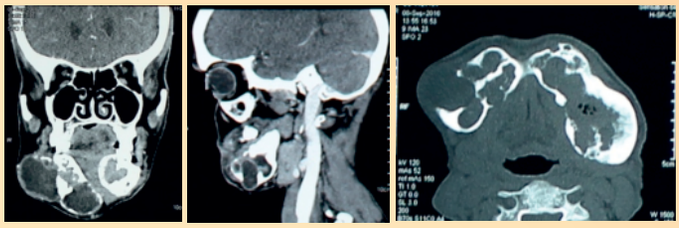
MANDIBULAR OCCLUSAL RADIGRAPH

Fig.4: Differential bicortical expansion.

PANORAMIC RADIOGRAPH :

Fig.5: Extensive expansile multilocular radiolucent lesion extending bilaterally in the mandible crossing over the midline. Large soap bubble pattern is evident.

COMPUTED TOMOGRAPHY



SAGITTAL VIEW **CORONAL VIEW** **AXIAL VIEW**

Distinct extensive expansile well defined hypodense locular areas running through the entire mandibular body with thinned out cortices. No perforation noted.

AXIAL VIEW : Areas of distinct perforation of the lingual cortices both on the right and left side. Buccal cortical perforation noticed on the right side. Mixed hypo and hyperdense areas with probable soft tissue extension bilaterally in the lingual aspect revealed.

SERVICES

Intra-operative frozen section facility at GMCH

The central laboratory of GMCH has added the facility of frozen section diagnosis to the existing facilities. It is available for rapid intraoperative diagnosis of suspected malignancy. This facility is useful to confirm negative margins in all radical surgeries before closing the case. The information for frozen sectioning should be intimated to the department of pathology at least three hours (preferably a day prior) before the operation, so that the cryostat may be switched on well in time to achieve the desired temperature for frozen sectioning. The report will take around 45 minutes after receiving the sample and will be communicated telephonically.

A New Era Begins: Laparoscopic Hysterectomy at GMCH

Dr. Anjana Verma, Professor, Department of Obstetrics and Gynaecology, GMCH is performing diagnostic and operative laparoscopy for more than a decade. Now total laparoscopic hysterectomy has been started by her at GMCH, which is the need of hour.

In last couple of months, seven cases have been performed successfully with less intraoperative haemorrhage, less post operative pain and shorter hospital stay as compared to open abdominal hysterectomies. There were no intraoperative and postoperative complications. In one case we had to open abdomen, reason being non-availability of back up harmonic probe. All the patients were followed up. They had excellent and fast recovery.

Special thanks to our expert faculty and team members Dr. Smita Baheti (Assistant Professor), Dr. Rita Saxena (Assistant Professor), Dr. Medhavi Sharma (Resident), Dr. Ashish Varma (Resident); our OT assistants: Mr. Hemant Garg, Mr. Rajkumar Meena, Mr. Kamlesh Rao and Mr. Deepak Solanki

Fig 1: OPG Machine

Geetanjali Dental & Research Institute

Geetanjali Dental & Research Institute is fully equipped with latest and advanced facilities and equipments like orthopantomogram which gives a panoramic view of maxillary and mandibular teeth and bony landmarks. It is useful in evaluation of TMJ disorders, impacted teeth, cysts & tumors, fractures, maxillary sinus etc. (Fig 1). Implant placement, crown fabrication, prosthetic rehabilitation, use of advanced rotary instruments is routinely done here.

The Department of Prosthodontics is rehabilitating a number of patients via implant placement. The pictures here are of a young female patient who lost several anterior teeth due to road traffic accident. 5 implants were placed and final prostheses were given fulfilling both the esthetic and functional requirements of the patient

Fig 2: Implant placement & crown fabrication

(Fig 2).

The Department of Oral Medicine & Radiology has reported various cases in the recent past. A case of actinomycotic osteomyelitis with intra-osseous carcinoma of the mandible in a male patient was diagnosed and surgically managed by placing a reconstruction plate by Department of Oral & Maxillofacial surgery (Fig 3).

Cases like cyst removal and trauma cases are handled immediately and treated effectively as well. The following are pictures of a patient with dentigerous cyst in relation to anterior maxilla with impacted canines bilaterally. Cyst enucleation and further management of the patient is handled by department of oral & maxillofacial surgery. (Fig 4)

Fig 3: Actinomycotic osteomyelitis with intra-osseous carcinoma of the mandible

Fig 4: Dentigerous Cyst irt anterior maxilla irt Impacted Canines

HONORS AND ACHIEVEMENTS

Dr. Sunanada Gupta invited as resource person for international conferences

Dr. Sunanda Gupta, Professor and head, Deptt of Anaesthesiology, was invited to deliver a lecture on "Maternal mortality and role of obstetric anaesthesia" at the World Congress of Anaesthesiologists, Hongkong in October 2016. She was also invited as a keynote speaker at the Annual Conference of Anaesthesiologists in Kualalumpur, Malaysia from 28th to 30th September 2016, where she spoke on Obstetric hemorrhage: Recent advances; Analgesia for knee Arthroplasty and Postoperative cognitive dysfunction in post surgical patients.

Dr. Harpreet Singh completes fellowship from Switzerland

Dr. Harpreet Singh, Professor, Department of Orthopeadics, joined an advance European fellowship programme in Hip and Knee joint replacement surgery for 1 month at the prestigious CHUV (University of Lousanne Medical Institute) Switzerland from November 20 to December 19,2016. This fellowship programme consisted of wide exposure to different surgical techniques in hip and Knee replacement arthroplasties including revision arthroplasties, dual mobility hip implants , acetabular reconstruction in extreme bone loss for revision hip surgeries, complex knee reconstruction in bone deficiencies etc. This fellowship programme also included the use of navigation techniques in complex joint replacement surgeries. CHUV, Switzerland is one of the top tertiary care teaching medical institute of Europe and its faculty consists of several pioneers in the field of replacement arthroplasty. We congratulate Dr. Singh and believe his expertise will enrich the existing services.

Dr. Amandeep wins second prize at the 10th Global Helath Care Summit

Dr. Amandeep, Post-graduate Resident, department of Psychiatry, GMCH was awarded the second prize in the poster presentation competition conducted by the American Association of Physicians of Indian Origin (AAPI) as part of the 10th Global Health Care Summit organized at Udaipur. Dr. Amandeep presented his work on 'Nomophobia and its relationship with depression, anxiety and quality of life in adolescents'. About 300 researchers from AIIMS New Delhi, PGI Chandigarh, SMS Jaipur, USA and UK took part in this competition. Dr. Ajay Lodha, President, AAPI presented Dr. Amandeep a certificate and cheque of Rs.25000.

Dr. Amandeep (right) receiving the prize from Dr. Ajay Lodha, President, AAPI

Dr. Suman Parihar awarded prestigious fellowship

Dr. Suman Parihar, Associate Professor, Department of General Surgery was awarded Fellowship in Minimal Access Surgery (FMAS) at the 11th International Congress of Association of Minimal Access Surgeons of India on the 17th November at Kolkata. GMCH is proud of her achievement and wishes her success in future endeavors.

CONFERENCES & WORKSHOPS

41st Annual Conference of the Indian Psychiatry Society North Zone held at GMCH

The 41st Annual Conference of the Indian Psychiatry Society North Zone (IPS-NZ) 2016 was held at Geetanjali Medical College & Hospital Udaipur on 22nd and 23rd October. The conference was attended by about 300 mental health professionals from across the country. Prof. D.M. Mathur and Dr. Jitendra Jeenger were the organizing chairman and secretary respectively. Mr. J.P. Agarwal, Chairman of Geetanjali University was the chief guest for the inaugural program of the conference. Dr. G. Prasad Rao, President of Indian Psychiatry Society and Dr. R.K. Nahar, Vice-Chancellor of Geetanjali University were the guests of honor. Dr. R.C Jiloha assumed his responsibilities as President of IPSNZ from Dr. Rajesh Rastogi. The conference was conducted with a theme of *Recent Advances in Child & Adolescent Psychiatry*. Renowned psychiatrists and clinical psychologists from premier institutes of the country such as National Institute of Mental Health and Neuro Sciences (NIMHANS, Bengaluru), Post Graduate Institute of Medical Education and Research (PGIMER, Chandigarh) and All India Institute of Medical Sciences (AIIMS, New Delhi) deliberated upon pertinent issues in this area. Noteworthy experts at conference were Prof. Savita Malhotra, Prof. Chittaranjan Andrade, Prof. R.K. Solanki, Prof. Shiv Gautam, Prof. D.K. Sharma, Prof. Mahendra P. Sharma, Prof. Rajesh Sagar, Dr. K. John Vijaysagar, Dr. Ajeet Sidana, Dr. Naresh Nebhinani, Dr. Preeti Jacob and Dr. Nithya M. Poornima. Symposia on Child and Adolescent Depression, Attention Deficit Hyperactivity Disorder (ADHD) and Pervasive Developmental Disorders (PDD), and a workshop on Mindfulness Integrated Cognitive Therapy for Adolescents with Obsessive Compulsive Disorder (OCD) provided delegates with an enriching academic experience. The best research papers presented were awarded and a quiz for post-graduates was conducted. The conference concluded with a valedictory function.

RAJAOICON 2016 held at GMCH

37th Annual State Conference of AOI, Rajasthan Chapter – **"RAJAOICON 2016"** was held at Geetanjali Medical College and Hotel Ambience between October 21-23, 2016, which was organized jointly by department of ENT, GMCH and Udaipur ENT Society.

Prof (Dr.) A.K. Gupta, Head, Dept. of ENT, GMCH was organizing chairman and Dr. Lokesh Partani, Director, Partani ENT Hospital was organizing secretary of the conference.

Around 200 ENT surgeons across Rajasthan attended the conference and were benefitted by the academically enriching show of live surgeries and various orations.

Dr. Pedro Claros from Spain, Dr. Jean Pieree Bebear from France, Dr. Suresh Sharma, HOD AIIMS, Delhi, Dr. Sharad Maheshwari & Dr. Ajay Singhal from Delhi and Dr. Satish Jain from Jaipur were the prominent guest faculties across the globe.

Live surgical workshop was organized on 21st October, 2016 at GMCH where our guest faculties demonstrated various surgeries like Cochlear implant, endoscopic sinus surgeries and ossicular

reconstruction surgeries. All the surgical procedures were telecasted live from Operation Theater to the auditorium.

Prof (Dr.) A.K. Gupta was felicitated with life time achievement award for his unremarkable contribution to the ENT fraternity. Dr. Padro Claros was appointed as honorary professor and guest faculty by Geetanjali University.

Various orations, lectures, resident paper presentations and PG quiz were organized in conference. Dr. Shifa Vyas, post-graduate resident in ENT stood third in poster presentation.

Workshop Conducted on Sutures and Knotting

A hands on workshop was organized on dated 18 Oct., 2016 at Seminar Hall of Geetanjali Medical College under the auspices of department of General Surgery, GMCH. The workshop was attended by all the residents of surgical specialties viz Gen. Surgery, Oncosurgery, Pediatric surgery, Gynecology, ENT & Ophthalmology. This provided them an excellent exposure to the basic art of knotting and suturing. This academic event was sponsored by Johnson & Johnson Ltd. and Prof (Dr.) Pankaj Kumar Saxena, was the workshop coordinator.

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World Health & Wellness Congress & Award
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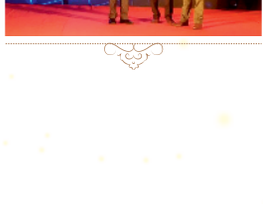
Healthcare Leadership Award 2016
"Best Green Award"



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