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HIGHLIGHTS



- A Case Report on the Role of Fiberoptic Bronchoscopy
- Ketamine in Treatment of Depression
- *Elizabethkingia Meningoseptica* - An Emerging Nosocomial Pathogen
- Appearances in Oral Mucosa: Normal Variation or Pathology?
- A Comparative Study of Quality of Life and Self-esteem of Patients with Psoriasis and Vitiligo
- Role of Vitamin D Supplementation In 'Sick' Infants
- Nomophobia in Medical Postgraduates
- Pointing is a Prerequisite for Language
- Toddlers can Master Computers



Dr. Atul Luhadia

MASSIVE HEMOPTYSIS WITH NORMAL CHEST RADIOGRAPH AND CONTRAST ENHANCED COMPUTED TOMOGRAPHY: A CASE REPORT ON THE ROLE OF FIBEROPTIC BRONCHOSCOPY

Dr. Atul Luhadia, Assistant Professor & Interventional Pulmonologist,
Department of Respiratory Medicine, GMCH, Udaipur.

Introduction

Hemoptysis is one of the alarming symptoms of an underlying pulmonary problem. It may present as minimal blood-streaked sputum or moderate to massive hemoptysis compromising the airway & hemodynamic status, endangering life. Mortality ranges usually from 7-30%, but may be as high as 80% in massive hemoptysis. The symptoms are distressing for the patient & frequently raise concern about serious underlying disorders, including lung cancer.¹ Therefore, a thorough evaluation of a patient with even a small amount of hemoptysis is warranted. We report a case of massive hemoptysis with a normal normal chest radiograph and contrast enhanced computed tomography. Bronchoscopy plays an important role in patients with hemoptysis and normal chest radiograph (CXR) and contrast enhanced CT (CECT) chest.^{2,3,4} Bronchoscopy play a central role in the evaluation & management of hemoptysis. Direct inspection allows localization of the bleeding site⁵ and isolation of bleeding segment to prevent flooding of non-bleeding lung and asphyxiation. Several bronchoscopic techniques such as balloon tamponade, topical application of cold saline, vasoconstrictors, & pro-coagulant substances may be applied for the temporary control of bleeding.

Case Report

A gentleman, aged 65 years, ex-smoker, diagnosed with Chronic Obstructive Pulmonary Disease (COPD) on regular medications for COPD with history of hemoptysis 2 months back presented to the emergency with history of hemoptysis and breathlessness. Amount of frank blood was approximately 300-400 ml. Pulse oximetry revealed a SpO₂ of 78% on room air, BP was 80 mmHg systolic at the time of presentation. Patient was admitted in intensive care and initiated on hemostatic agents and high flow oxygen. Chest X-ray was normal and CECT chest showed only bilateral emphysematous changes (Figures 1 & 2). Patient was shifted to a general ward after the subsidence of hemoptysis and hemodynamic stabilization.



Figure 1. Normal CXR

Subsequently, fiberoptic bronchoscopy (FOB) was performed to determine the source of bleeding and structural endobronchial abnormality, if any, which was not appreciable on CT chest. Clotted blood was seen in the left main bronchus. After

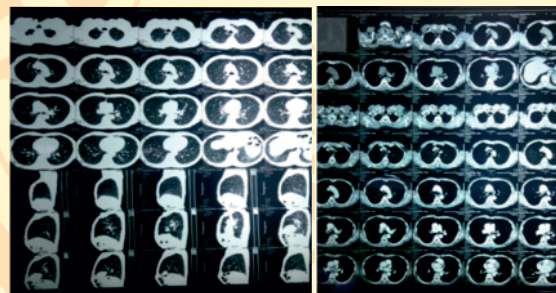
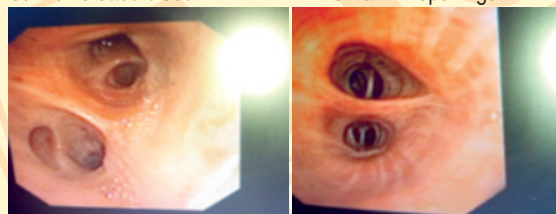


Figure 2. 'Near normal' CECT Chest



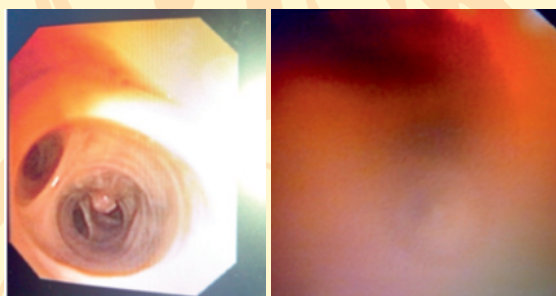
Carina- Clotted blood in LMB

LUL & LLL openings



LUL & LLL

After removal of blood clots



Small growth deep in LB10

Bleeding after biopsy

Figure 3. FOB findings

removal of blood clots from the airways through suction, segmental openings were visualized to determine any abnormality. All the segmental openings were found normal except posterior segment of LLL (LB10) in which a very small growth was seen (Figure 3). Biopsy was obtained with extreme difficulty as the growth was deep inside the segmental opening (LB10). Massive bleeding occurred after the tissue was taken with biopsy forceps. Hemostasis was achieved by keeping the scope in wedged position in LB10, instilling of ice cold saline and

Desk of the Dean



Dear Reader,

An intriguing joint issue of two quarters of *Spandan* is before you. In this issue, the reader will find scientific articles addressing latest research from various health care specialties. The institute has witnessed an increase in number of seats in almost all the post-graduate medical courses. It is hoped that this change will translate into enrichment of the scientific knowledge base across the region. This issue has reports on the major academic

events held in the University. I wholeheartedly commend the enthusiastic and proactive efforts of post-graduate students who have brought laurels to the University. The contributors deserve appreciation, as it is due to their humble and sincere efforts that *Spandan* is academically rich. I extend my best wishes and commendation to the Editorial Board for their endeavors to maintain *Spandan* as the flag bearer of Geetanjali University. Happy New Year to all!

Editor's Desk



Dear Reader,

As we warmly welcome the year 2018, from the first winds of winter to the last day of the year, it is time to enjoy the chills of the season with the celestial event of the Sun turning

northwards, "*Uttarayan*". In the meantime, our Institution has added a bunch of small academic treats. So, with sincere gratitude to our contributors, enjoy the Sunshine and a happy reading of *Spandan* in 2018.

Editor-in-Chief

vasoconstrictor agents. Broncho-alveolar lavage obtained showed normal microbiological and cytology reports. Histopathological examination revealed squamous cell carcinoma. Consequently, referral to an oncologist was made.

Discussion & Conclusion

Bronchoscopy should be performed to evaluate hemoptysis unless a clear cause is already established. It is a useful technique to localize the bleeding site, to exclude malignancy in patients with a normal CXR and CECT chest in smokers aged above 40 years, and history of recurrent or massive hemoptysis.

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Dr. Vikas Singroha

major depression.¹

Objective

To evaluate the antidepressant effect of a single intravenous infusion of ketamine in patients with major depressive episode.

Materials and methods

- Thirty consecutive in-patients with major depressive episode were treated with a single infusion of ketamine (0.25mg/kg over 40 minutes) along with oral medications as advised by treating psychiatrist
- *Hamilton Depression Rating Scale (HAM-D)*
- Reduction in HAM-D score by 50 % considered as response
- *Brief Psychiatric Rating Scale (BPRS) 18-item*
- *Young Mania Rating Scale (YMRS)*
- *Clinician Administered Dissociative States Scale (CADSS)*

SINGLE INTRAVENOUS KETAMINE INFUSION IN TREATMENT OF DEPRESSION- A BRIEF RESEARCH COMMUNICATION

Dr. Vikas Singroha¹, Dr. Manu Sharma², Dr. D.M. Mathur³, Dr. Jitendra Jeenger⁴

¹Post-graduate Resident, ²Assistant Professor, ³Professor & Head, ⁴Professor, Department of Psychiatry, GMCH, Udaipur.

Many studies have demonstrated the rapid, robust and transient antidepressant effects of ketamine administered at a dose of 0.5 mg/kg intravenously over 40 minutes in patients with

- Assessments done before and 24 hours after ketamine infusion

Discussion

- Single low dose (0.25 mg/kg over 40 minutes) intravenous ketamine infusion is effective in reducing the severity of depressive symptoms.²
- Ketamine therapy appears to be safe, well tolerated with minimal and transient side effects.²

- Single low dose ketamine can accelerate and improve efficacy outcomes with medications to treat depression.³

- Ketamine may be appropriate when depression in severe, rapid reduction suicidal features is desired or to

facilitate patients in mitigating important life situations.³

- Most conventional antidepressants are perhaps compatible with ketamine therapy.⁴

Conclusion

Ketamine is a safe, effective option in the treatment of major depression in a low dose. Given the rapid and robust antidepressant



effect of ketamine, future multi-centric research is warranted with regard to frequency of dosing.

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This research won the Best Poster Award at the 42nd Annual Conference of Indian Psychiatric Society- North Zone 2017 held at New Delhi.



Dr. Upasana Bhumbra

ELIZABETHKINGIA MENINGOSEPTICA - AN EMERGING NOSOCOMIAL PATHOGEN

Dr. Upasana Bhumbra, Assistant Professor, Department of Microbiology, GMCH, Udaipur.

Elizabethkingia meningoseptica classified under Group IIa of Center for Disease Control (USA) in 1959 was formerly named *Flavobacterium meningosepticum*. In 1994, it was reclassified and renamed as *Chrysobacterium meningosepticum*.¹ It is an emerging nosocomial pathogen especially among immunocompromised patients (such as those with malignancy, neutropenia, diabetes, steroid use, malnutrition and patients on dialysis). It is a gram negative rod, non-fermenter, non-motile, oxidase positive and is widely distributed in nature, particularly in soil and water.² The organism has tendency to survive in places apart from water supplies, sinks, taps, saline solutions and disinfectants. It can also survive in chlorine treated municipal water supplies, often colonising sink basins, intubation tubes, humidifiers, incubators of newborns; where it has become a competent threat for infections in the hospital set up.³

E. meningoseptica has a low degree of pathogenicity and only a small percentage of colonised patients develop sepsis, while others remain asymptomatic.⁵ Nosocomial infection due to *E. meningoseptica* has been linked to the use of indwelling devices during a hospital stay.

Elizabethkingia meningoseptica has been demonstrated to be primarily associated with neonatal meningitis and variety of infections as it is highly pathogenic for premature infants. Although neonatal meningitis is rarely encountered, it is important to diagnose the disease accurately because epidemics may occur in nurseries and a mortality rate as high as 55% has been reported.⁴

Elizabethkingia meningoseptica is multidrug resistant organism including extended spectrum beta lactams and aminoglycosides, acting as a serious challenge for the clinicians to treat. *Elizabethkingia* spp. possess two different types of beta lactamases, namely class A extended spectrum beta lactamases (ESBLs) and class B metallo beta lactamases (MBLs); the latter confers resistance to carbapenems, which are widely used to treat infections caused by multidrug resistant gram negative bacteria.⁵ Patients with *E. meningoseptica* bacteraemia have poor prognosis and use of inappropriate antibiotics further complicates. According to Clinical Laboratory Standards Institute (CLSI), breakpoints for this organism are still not established, making the choice of antibiotic very difficult for both clinicians and microbiologists. *E. meningoseptica* is resistant to beta lactams and other antibiotics which are commonly used for

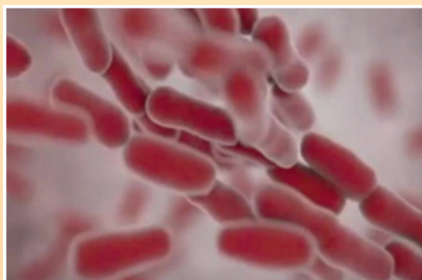
the treatment of gram negative bacteria, whereas it is relatively susceptible to antibiotics which are susceptible to treat gram positive bacteria. Studies have shown that more than 80% of the isolates are susceptible to trimethoprim-sulphamethoxazole, minocycline, moxifloxacin and levofloxacin. This gram negative bacilli is vancomycin sensitive and resistant to colistin. Many studies showed vancomycin has marginal in vitro activity against *Chrysobacterium* spp. isolates.⁶

Multivariate analysis has shown that *E. meningoseptica* infection acquired in intensive care units and other hospital areas have played an emerging role for independent predictors of 14 day mortality. Due to its multidrug resistance pattern, only a limited range of antibiotics are available for its treatment.

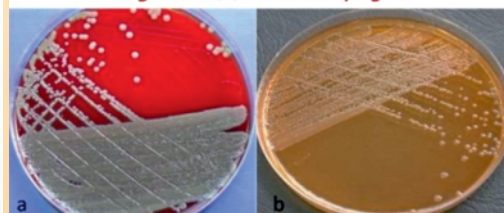
Inappropriate antimicrobial therapy, use of central venous catheters, biofilm formation with *E. meningoseptica* bacteraemia has raised the urgency to define the epidemiology, risk factors and antimicrobial resistance patterns associated with this organism. Efficient and active infection control measures like surveillance, inspection of hospital area and water tanks is required to control infection against this challenging bacterium.

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Elizabethkingia meningoseptica on (a) sheep blood agar and (b) MacConkey agar





Dr. Archana M.S.

APPEARANCES IN ORAL MUCOSA: NORMAL VARIATION OR PATHOLOGY?

Dr. Archana M.S.¹ and Dr. Ramya T.K.²,

¹Associate Professor, ²Reader, Department of Oral Medicine & Radiology, Geetanjali Dental and Research Institute, Udaipur.

Oral mucosa varies in different regions of oral cavity based on thickness and type of oral epithelium. Variations of normal soft tissue anatomy can present in the oral cavity which most often mimic pathology. The range of these variations is wide and findings can be very subtle or notably prominent. This article discusses the most commonly encountered oral soft tissue variations and gives a brief overview of the essentials for recognition and management.

Commisural lip pits

They are small mucosal invaginations /depressions less than 4mm in diameter and 1 to 4 mm deep, at the angles of the mouth usually discovered on routine examination. They may be unilateral or bilateral. Minor salivary gland ducts may drain into them hence occasionally saliva like fluid may be expressed from the same. No treatment is required as they are asymptomatic and innocuous. (Fig 1)



Figure 1: Commisural lip pits

Ephelides/freckle

Freckle appears as small (1 - 3mm) asymptomatic, well defined, tan/brown macule on sun exposed regions of facial /perioral skin and lips due to increase in melanin production without concomitant increase in melanocytes. They are thought to be developmental in origin. With age, their colour and number tend to diminish, hence do not require any treatment. (Fig 2)



Figure 2: Ephelides/freckle

Labial/ lingual varices

Varices occur commonly in lower lip as focal raised pigmentations which do not change in size appreciably. Lip biting is the most common contributing factor. Isolated varicosities often are first noticed after they are thrombosed when they present as firm, non-tender, bluish purple nodule. Thrombosed varix may blanch on diascopy. For masticatory and esthetic purposes and to confirm diagnosis surgical removal may be necessary.



Figure 3: Sublingual varicosities

Sublingual varicosities: Clinically present as multiple bluish purple papular blebs on ventral and lateral surface of tongue. They are typically asymptomatic. (Fig 3)

Retrocuspid papilla

It is a fibroepithelial papule, pink, round, about 1 to 4 mm in size seen on the attached gingiva lingual to the mandibular canines. It appears bilaterally most commonly in children. No treatment is required unless it interferes with placing the prosthesis. (Fig 4)

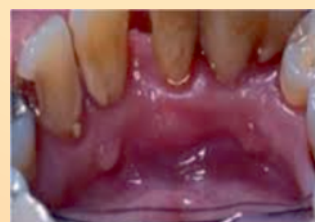


Figure 4: Retrocuspid papilla

Leukoedema

Leukoedema is a white veil like alteration of the oral mucosa that is considered as a normal variant, often seen bilaterally in the buccal

mucosa. It is more prevalent in blacks and in chronic smokers, usually discovered as an incidental finding. Clinically it appears as a generalized opacification of the mucosa, sometimes accompanied by mucosal folds. The white milky lesion is diffuse and gentle stretching results in temporary disappearance and reappears after the manipulation is discontinued. Treatment is not indicated as this lesion is asymptomatic and has no complications. (Fig 5)



Figure 5: Leukoedema

Fordyce granules

They are discovered on routine examination, characterized by clusters of small creamy white/yellow oval granules occurring bilaterally in the buccal mucosa, vermilion border of upper lip, retro-molar pad region, gingiva and palate. They represent ectopic collection of sebaceous glands. They may be slightly raised, asymptomatic and are non-functional. They tend to increase in size and number after puberty. Clinical appearance is classic and sufficient for diagnosis. No treatment is indicated. (Fig 6)



Figure 6: Fordyce granules

Linea alba

The commonly used term for this alteration of the oral mucosa is "White Line" which is seen as a horizontal streak bilaterally in the buccal mucosa at the level of occlusal plane especially pronounced in posterior dentulous areas. It may appear scalloped and is most likely associated with trauma from teeth due to friction or sucking trauma from buccal surfaces of teeth. The clinical appearance is diagnostic and no treatment is indicated. (Fig 7)

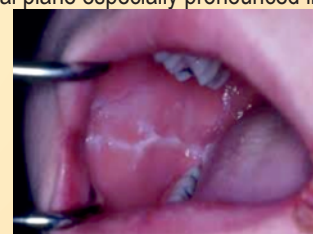


Figure 7: Linea alba

Morsicatio buccarum

Morsicatio is a parafunctional behavior, resulting in an asymptomatic shredded area in buccal and labial mucosa, often seen in women. Such habitual chewing may sometime result in more extensive destruction necessitating suspicion of a psychiatric disorder. However morsicatio does not cause ulcerations and management includes assurance and patient education. (Fig 8)



Figure 8: Morsicatio buccarum

Parotid papilla

Parotid papilla is a projection at the opening of the parotid duct into the vestibule of the mouth opposite the neck of upper second molar

tooth. This elevation protects the parotid gland duct orifice from trauma. It is a normal variation and does not require any treatment.

Tori/exostoses

These are developmental bony growths commonly seen in the midline of hard palate and on lingual aspect of mandible where they are referred to as Tori and on buccal aspect of maxilla or mandible, presenting as well defined dome-shaped bony growths or multilobulated masses, covered by parakeratinized or non-keratinized mucosa depending on the location. They are usually asymptomatic unless the covering mucosa is irritated or secondarily ulcerated. Tori may have to be surgically removed before denture fabrication. Occasionally, exostoses removal is warranted when the overlying mucosa is repeatedly traumatized. (Fig 9)



Figure 9: Tori/exostoses

Physiologic pigmentation

Physiologic melanin pigmentation is seen in the oral cavity, colour ranging from light brown to black. This is observed more commonly in dark skinned individuals but can be seen otherwise in fair skin also. It is caused due to deposition of melanin in connective tissue. (Fig 10)



Figure 10: Physiologic pigmentation without increase in the number or size of melanocytes. Gingiva, tongue, buccal mucosa and lips are the common sites of presentation. It requires no treatment except for esthetic concern. (Fig 10)

Conclusion

Fundamental to diagnose oral pathologic conditions is the ability to recognize the spectrum of clinical findings that represent variation of normal within the population. Clinician needs to maintain an awareness of the occurrence of these findings. Recognition of such variations is possible if the examiner visualizes the tissue surface and its topography including contour, colour and texture. In most instances these variations are of little or no clinical significance. A clinician should have thorough knowledge of such normal appearances in structure of oral mucosa so as to determine the need for management.



Dr. Devanshi Sharma

A COMPARATIVE STUDY OF QUALITY OF LIFE AND SELF-ESTEEM OF PATIENTS WITH PSORIASIS AND VITILIGO

Dr. Devanshi Sharma¹, Dr. Jitendra Jeenger², Dr. Manu Sharma³

¹Post-graduate Resident, ²Professor, ³Assistant Professor, Department of Psychiatry, GMCH, Udaipur.

Background and aims: Psoriasis and vitiligo are among the most common chronic skin diseases, which has a negative impact on the psychosocial well-being. Patients may experience social rejection and stigmatization. Therefore, both these dermatological conditions may lead to decrease in the self-esteem and quality of life (QoL) of the patients. So, present study aimed to assess and compare the self-esteem and quality of life in patients with vitiligo and psoriasis and healthy controls and its correlation with age and gender.

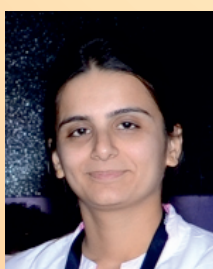
Methods: A cross-sectional and comparative study was conducted at a tertiary care hospital (GMCH), Udaipur, Rajasthan, with a sample of total 150 cases, 50 each of psoriasis, vitiligo and healthy controls, aged between 18-64years. All subjects were assessed for quality of life and self esteem by using scales Short Form-36 (SF-36) and Rosenberg Self-Esteem Scale (RSES) respectively.

Results: The results of our study showed that self esteem was low in psoriatic patients when compared to vitiligo patients ($p=0.000$) and

healthy controls ($p=0.009$). Psoriatic patients also had poor quality of life when compared to vitiligo and healthy controls ($p=0.000$). There was no correlation found between age and gender with regards to self esteem and quality of life in patients of psoriasis and vitiligo except poor social function domain of QoL, which was observed in middle age group (40-64years) patients of psoriasis.

Conclusion: More reduction in self esteem and quality of life was there in psoriasis patients when compared to vitiligo patients and healthy controls. While evaluating and arranging treatment of psoriasis and vitiligo patients, it should be considered that these are not only a dermatological diseases, but also a disease resulting in poor psychosocial functioning, therefore along with dermatologic interventions, psychiatric approaches should also be considered with these patients for a better outcome.

This research won the Gehlot Award for best research paper at the 32nd Annual State Conference of the Indian Psychiatric Society Rajasthan Branch 2017 held at Ajmer, Rajasthan.



Dr. Nidhi Bhedru

ROLE OF VITAMIN D SUPPLEMENTATION IN 'SICK' INFANTS

Dr. Nidhi Bhedru¹, Dr. Mahendra Jain², Dr. Devendra Sareen³

¹Post-graduate Resident, ²Assistant Professor, ³Professor and Head, Department of Pediatrics, GMCH, Udaipur.

Objective: To study the frequency of infant Vitamin D deficiency and its relationship with infant morbidity and maternal Vitamin D levels.

Materials & Method: The study subjects comprised of 350 sick infants admitted in level III neonatal intensive care unit (NICU) of a tertiary medical institute during February 2015 and January 2016. Blood for infant (within 72hrs of admission) and maternal vitamin D levels were obtained from all infants and their

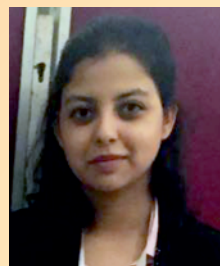
mothers at the time of hospital admission. Vitamin D assessment was done by chemo-immunoassay method. Pertinent clinical and laboratory evaluation was performed for respiratory distress, birth asphyxia, neonatal seizure, neonatal encephalopathy, hypoglycemia, prematurity, neonatal sepsis, hyper-bilirubinemia, coagulation disorder and renal failure.

Results: For data analysis, a total of 335 infants were studied from NICU, out of which 155 were found to be vitamin D deficient. Vitamin D level of mothers was compared with the Vitamin D deficient and

normal infants. There was no statistically significant difference between two groups with regard to maternal age ($p=0.65$), gender of baby ($p=0.92$), mode of delivery ($p=0.50$) and domicile (rural-urban) status ($p=0.97$). It was observed that mothers of deficient neonates also had lower levels of vitamin D. Statistically significant difference in association was found between both two groups on all the parameters.

Conclusion: Vitamin D deficient infants have higher morbidity as compared to normal infants. Therapeutic Vitamin D supplementation reduces NICU stay of infants with Vitamin D deficiency in contrast to infants receiving routine Vitamin D supplementation.

This work won the Best Research Paper Award at the RAJNEOCON-2017, Udaipur.



Dr. Ankita Singh

NOMOPHOBIA IN MEDICAL POSTGRADUATES AND ITS RELATIONSHIP WITH DEPRESSION, ANXIETY AND SELF-ESTEEM

Ms. Gayatri Sahu¹, Dr. Ankita Singh², Dr. Manu Sharma³, Dr. D.M Mathur⁴, ¹Undergraduate Student (B.Sc-Medical); ²Post-graduate Resident, ²Asistant Professor, ³Professor & Head, Department of Psychiatry, GMCH, Udaipur.

Introduction

The term nomophobia is a portmanteau for "no mobile phone phobia," referring to the feeling of discomfort, anxiety, nervousness or anguish experienced by individuals when they are unable to use and utilize the affordance their mobile phones provide. Surveys performed in different countries and cultures have shown that nomophobia is widespread.

Aims and Objective

To assess the prevalence of nomophobia, and its relationship with depression, anxiety and self esteem in medical post-graduate students.

Methodology

A cross sectional survey study on 100 medical postgraduates of GMCH, Udaipur employing the following questionnaires:

- The Nomophobia Questionnaire (NMP-Q)
- Hamilton Depression Rating Scale (HAM-D)
- Hamilton Anxiety Rating Scale (HAM-A)
- Rosenberg Self-esteem Scale (RSES)

Results

Table 1. Sample characteristics of the study population (N=100)

Variable	Mean	Standard Deviation
Age (years)	26.54	2.1
NMP-Q	71.03	22.1
HAM-D	9.92	7.2
HAM-A	9.68	7.14
RSES	20.92	5.0

Discussion

- In this study prevalence of nomophobia was 53% in the study population. Various studies report high prevalence of nomophobia in the study population.²
- This study demonstrate that individuals with nomophobia experience significant anxiety.³
- The present study found a significant relationship between nomophobia with depression and self esteem.

Conclusion

Excessive internet/ mobile phones have known to be associated with mental health problems. Though nomophobia is not a diagnostic category at present, it might find its place as a independent diagnostic category in future. Early intervention may help to modify lifestyle and to understand proper usage of mobile phone improving the physical and mental health of its users.

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Table 2. Relationship between NMP-Q and HAM-A, NMP-Q and HAM-D scores NMP-Q and RSES scores

	Mean	Variance	df	t (two-tailed)	p (2- tailed)
NMP-Q	71.03	489.54	120	1.97	0.000
HAM-A	9.92	53.0			
NMP-Q	71.03	489.54	119	1.98	0.000
HAM- D	9.68	50.98			
NMP-Q	71.03	489.54	109	1.98	0.000
RSES	20.92	25.3			

This research won the Dr. Anil Kumar Dutt Poster Award at the 18th Annual National Conference of the Indian Association for Private Psychiatry 2017 held at Jaipur, Rajasthan.



N.J. Enfield

POINTING IS A PREREQUISITE FOR LANGUAGE

N.J. Enfield, Professor and Chair, Department of Linguistics, University of Sydney; Author, *The Utility of Meaning*

Research in developmental and comparative psychology has discovered that the humble pointing gesture is a key ingredient for the capacity to develop and use human language, and indeed for the very possibility of human social interaction as we know it.

Pointing gestures seem simple. We use them all the time. I might point when I give someone directions to the station, when I indicate which loaf of bread I want to buy, or when I show you where you have spinach stuck in your teeth. We often accompany such pointing gestures with words, but for infants who are not yet able to talk these gestures can work all on their own.

Infants begin to communicate by pointing at about nine months of age, a year before they can produce even the simplest sentences. Careful experimentation has established that pre-linguistic infants can use pointing gestures to ask for things, to help others by pointing things out to them, and to share experiences with others by drawing attention to things that they find interesting and exciting.



Pointing does not just manipulate the other's focus of attention, it momentarily unites two people through a shared focus on something. With pointing, we do not just look at the same thing, we look at it *together*. This is a particularly human trick, and it is arguably the thing that ultimately makes social and cultural institutions



possible. Being able to point and to comprehend the pointing gestures of others is crucial for the achievement of "shared intentionality," the ability to build relationships through the sharing of perceptions, beliefs, desires, and goals.

Comparative psychology finds that pointing (in its full-blown form) is unique to our species. Few non-human species appear to be able to comprehend pointing (notably, domestic dogs can follow pointing while our closest relatives among the great apes cannot), and there is little evidence of pointing occurring spontaneously between members of any species other than our own. It appears that only humans have the social-cognitive infrastructure needed to support the kind of cooperative and pro-social motivations that pointing gestures presuppose. This suggests a new place to look for the foundations of human language. While research on language in cognitive science has long focused on its logical structure, the news about pointing suggests an alternative: that the essence of language is found in our capacity for the communion of minds through shared intentionality. At the center of it is the deceptively simple act of pointing, an act that must be mastered before language can be learned at all.

Source: <https://www.edge.org/response-detail/26709>



Alison Gopnik

TODDLERS CAN MASTER COMPUTERS

Alison Gopnik, Psychologist, UC, Berkeley; Author, *The Gardener and the Carpenter*

In the last couple of years toddlers and even babies have begun to be able to use computers. This may seem like the sort of minor news that shows up in the "lifestyle" section of the paper and in cute you-tube videos. But it actually presages a profound change in the way human beings live.

Touch and voice interfaces have only become ubiquitous very recently—it's hard to remember that the iPhone is only eight years old. For grown-ups, these interfaces are a small additional convenience. But they completely transform the way that young children interact with computers. For the first time, a toddler can directly control a smart phone or tablet.

And they do. Young children are fascinated by these devices and they are remarkably good at getting them to do things. In recognition of this, in 2015, the American Academy of Pediatrics issued a new report about very young children and technology. For years the Academy had recommended that children younger than two should have no access to screens at all. The new report recognizes that this

recommendation has become completely impracticable. It focuses instead, sensibly, on ensuring that when young children look at screens, they do it in concert with attentive adults, and that adults supervise what children see.

But this isn't just news for anxious parents, it's important for the future of the entire human species. There is a substantial difference between the kind of learning we do as adults, or even as older children, and the kind of learning we do before we are five. For adults, learning mostly requires effort and attention; for babies, learning is ubiquitous and automatic. Grown-up brains are more "plastic" than we once thought, (neural connections can rewire) but very young brains are far more plastic—young children's brains are designed to learn.

In the first few years of life we learn about the way the physical, biological, and psychological world work. Even though our everyday theories of the world depend on our experience, by the time we're adults we simply take them for granted—they're part of the unquestioned background of our lives. When technological, culturally specific knowledge is learned early it becomes part of the

background too. In our culture children learn how to use numbers and letters before they are five, in rural Guatemala, they learn how to use a machete. These abilities require subtle and complicated knowledge, but it's a kind of knowledge that adults in the culture hardly notice (though it may startle visitors from another culture).

Until now, we couldn't assume that people would know how to use a computer in the way we assume they know how to count. Our interactions with computational systems depended on first acquiring the skills of numeracy and literacy. You couldn't learn how a computer worked without first knowing how to use a keyboard. That ensured that people learned about computers with relatively staid and inflexible old brains. We think of millennial high-school tech



whizzes as precocious "digital natives." But even they only really began to learn about computers after they'd reached puberty. And that is just the point when brain plasticity declines precipitously.

The change in interfaces means that the next generation really will be digital natives. They will be soaked in the digital world and will learn about computers the way previous generations learned language—even earlier than previous generations learned how to read and add. Just as every literate person's brain has been reshaped by reading, my two-year-old granddaughter's brain will be reshaped by computing. Is this a cause for alarm or celebration? The simple answer is that we don't know and we won't for at least another twenty years, when today's two-year-olds grow up. But the past history of our species should make us hopeful. After all, those powerful early learning mechanisms are exactly what allowed us to collectively accumulate the knowledge and skill we call culture. We can develop new kinds of technology as adults because we mastered the technology of the previous generation as children. From agriculture to industry, from stone tools to alphabets to printed books, we humans reshape our world, and our world reshapes our brains. Still, the emergence of a new player in this distinctively human process of cultural change is the biggest news there can be.

Source: <https://www.edge.org/annual-question/2016/response/26626>

CONFERENCES & WORKSHOPS

AMUCON 2017

The 1st Annual National Conference of Association for Medical Updates (AMU)- AMUCON 2017 was organized at Geetanjali Medical College on 2nd and 3rd September 2017 with the theme, *"Therapeutic and Diagnostic Advancements in Medical Science"*. The conference was inaugurated by the chief guest Shri. J.P. Agrawal, Hon'ble Chairman, Geetanjali Group of Institutions and the guest of honor Dr. S.P. Dhaneria, Dean, AIIMS (Raipur). Conference was attended by more than 350 delegates from all over the country and

provided a common platform for professionals from various medical specialties to share knowledge and experiences on recent updates in medical field. A pre-conference workshop on *"How to write and publish a scientific paper"* was conducted on 1st September 2017. The conference was organized under the chairmanship of Dr. F.S. Mehta, Dean, GMCH and Dr. Ashish Sharma, Head, Department of Biochemistry, GMCH served as the organizing secretary. The Executive Committee comprised of Dr. Manjinder Kaur, Dr. Jitendra Jeenger, Dr. Arvind Yadav, Dr. Savita Yadav, Dr. Apurva Agrawal, Dr. Manu Sharma, Dr. Himanshu Patel and Dr. Upasana Bhumbha.



A National Level Conference organized by GCSN in collaboration with NRSI

A conference with the theme, *"Evolving dimensions in Nursing Research: Future Perspective"* was organized by the Geetanjali College and School of Nursing, Udaipur with the collaboration of Nursing Research Society of India (NRSI) from 27th October 2017 to 29th October 2017. About 440 delegates and faculty registered for this event.

The inaugural ceremony was graced by the august presence of the chief guest Dr. R.K. Nahar, Hon'ble Vice-Chancellor, Geetanjali University; Shri. Ankit Agrawal, Executive Director, Geetanjali Group of Institutions and Dr. Jayalakshmi L.S., Dean & Director, Geetanjali

College & School of Nursing (GCSN) who was the organizing chairperson of this conference. Also in gracious attendance were Dr. Usha Ukhande, President-NRSI, Dr. Amarjeet Sandhu, Secretary-NRSI and faculty of GCSN. A conference souvenir was released by the dignitaries. The conference was an academic feast with scientific sessions conducted by experts from across the country which was followed by a valedictory function. The chief guest of the function was Dr. Kishor Pujari, CEO, GMCH. There were prizes for the best research paper as well as poster presentations and felicitation of the evaluators. The conference concluded with distribution of certificates to the participants.



Medical Education Unit of GMCH organized the revised Basic Course Workshop



The Medical Council of India (MCI) permitted the Medical Education Unit (MEU) of GMCH to organize the *Revised Basic Course Workshop on Medical Education Technologies* from 25th-27th September 2017. The MCI deputed Dr. Kannan Shah, Smt NHL Medical College, Ahmedabad as an observer for this workshop.

About 30 faculties of GMCH from various para-clinical, pre-clinical and clinical specialties attended. The workshop was inaugurated by Dr. F.S. Mehta, Dean, GMCH. The deliberations were based on the syllabus standardized by the MCI which included lectures, demonstrations, group discussions, exercises and plenary sessions. The delegates were also sensitized to test construction principles and methods. The in-house resource faculty comprised of Prof.(Dr.) Manjinder Kaur (Convener, MEU), Prof.(Dr.) Harpreet Singh, Prof. (Dr.) Mukul Dixit, Prof.(Dr.) Ashish Sharma, Prof. (Dr.) Jitendra Jeenger, Prof. (Dr.) Arvind Yadav, Dr. Suman Parihar, Dr. Manu Sharma, Dr. Naren Kurmi and Dr.

Upasana Bhumbra. A pre and post workshop evaluation was conducted and to the contentment of all, the post workshop evaluation revealed significant gain in delegates' knowledge. The workshop concluded with a valedictory function presided by Dr. Kannan Shah.

Workshop on Protocol and Thesis Writing

The dissertation is an integral part and a partial requirement for the post-graduate degree qualification. The Medical Education Unit (MEU) of GMCH organized and conducted a workshop on *Protocol and Thesis Writing* with the objective of sensitizing post-graduate

students to research methodology. The one day workshop conducted on September 16th & October 10, 2017 comprised of academic sessions which included lectures, group work and plenary sessions.

RAJNEOCON 2017- Successfully Organized at Geetanjali Hospital



The annual Rajasthan state neonatology conference (RAJNEOCON 2017) was organized by the Department of Pediatrics, Geetanjali Medical College and Hospital (GMCH), Udaipur in association with National Neonatology Forum- Rajasthan Branch between 4th & 5th November 2017. The theme of conference was **“Reach to the Unreached”** was aimed to share knowledge, exchange information and to train peripheral health workers including nursing staff to address the unmet needs of essential newborn resuscitation and care, with the hope of reducing neonatal morbidity and mortality. The conference was host to about 450 delegates and faculties from across the country and abroad. This is unique in the history of neonatology conferences of the state and country to have had such a high number of registrations.

The inaugural ceremony was graced by the presence of the chief guest and Hon'ble



chairman of Geetanjali Group of Institutions (GGI), Shri J.P. Agrawal. Also in gracious attendance were Dr. R.K. Nahar, Hon'ble Vice Chancellor, Geetanjali University; Shri. Ankit Agrawal, Executive Director (GGI); Dr. Kishor Pujari, CEO (GMCH) and Dr. G.L. Dad, Dean-in-charge (GMCH). Special invitees were office bearers of National Neonatology Forum of India (NFFI), namely, Dr. Ajay Gambhir, Dr. Alok Bhandari, Dr. Lalan Bharti and Dr V.P.Goswami, former president, secretary, treasurer, national nodal person IAP-

NNF-NRP India, respectively. Dr. S.M. Mittal, Director (Family Welfare), Dept. of Medical, Health & Family Welfare, Govt. of Rajasthan, was also part of the August gathering. The two day conference witnessed discussions on varied facets of neonatology with focus on practical aspects. Four pre-conference workshops on pertinent clinical issues such as 'golden hour', neonatal resuscitation, functional echocardiography and non-invasive neonatal ventilation were organized on 3rd November 2017. Continued medical education

(CME) sessions in care of health and sick newborns were concurrently held for nursing staff. This was also a first in the history of a state level neonatology conference. Besides an academic feast, the delegates were extended hospitality with cultural events. RAJNEOCON 2017 was successful because of the sincere efforts of

Dr. Devendra Sareen and Dr. Suresh Goyal (organizing chairpersons), Dr. Mahendra Jain and Dr. Lakhan Poswal (organizing secretaries), Dr. Pankaj Doshi (convenor), Dr. Dileep Goyal (treasurer), Indian Academy of Pediatrics-Udaipur Branch and all members of the dept. of pediatrics, GMCH.

GCSN ANNUAL DAY CELEBRATION

Geetanjali School and College of Nursing (GSCN) organized *Gunjan-The Echo 2017*, its annual day celebration on 21st December 2017 at Geetanjali University Auditorium where students showcased their talents.

The inaugural ceremony was graced by the presence of the chief guest, Shri. Ankit Agarwal, Executive Director (GGI). Also in august attendance were Dr. Kishor Pujari, CEO (GMCH); Dr. Jayalakshmi L.S., Dean (GSCN); Dr. Yogeshwar Puri Goswami, Principal (GCN); Mr. Gajendra Jain, Principal, (GSN) and Mr. Kuldeep Patidar, Academic Officer (GCN). The dignitaries were felicitated by faculty

members of GCSN. The Principal (GCN) delivered the welcome addressed followed by the Annual Report. The respected CEO (GMCH) and Dean (GSCN) addressed the gathering and were appreciative of the endeavors of the students. The audience was entertained by the cultural performances of the students of B.Sc. (Nursing), M.Sc. (Nursing) and GNM courses. A short documentary film, "*Glimpses 2017*" featuring memorable events of GCSN in the academic year 2016-17 was showcased. The academic toppers of the various courses were awarded trophies and certificates by the dignitaries. The program concluded with the vote of thanks which was delivered by the Principal (GSN).



MILES TO GO...

Dr. Purva Mandot, Intern, GMCH, Udaipur.



Dr. Purva Mandot

Not that one feels less of a doctor wearing a white apron with stethoscope hung around the neck, but management and understanding of real medical cases is what it takes to make one feel like a savior of humanity. As Mother Teresa rightly said, "Hands that help are holier than the lips that pray".

Having gone through the internship for over 6 months now, I find it difficult to recollect a day when we did not learn something new-something worthwhile. As startled (and intimidated) as one might be on reading most cases in those unending textbooks of medical curriculum, one is never fully able to acknowledge and admire the nuances unless one gathers hands-on experience in the department.

What a privilege indeed, to have had my first exposure to the medical world with Geetanjali Medical College, with the right kind of atmosphere, facilities and to top it all, the unparalleled guidance and timely course correction from our esteemed teachers.

Even if it is basic ground work, it never fails to provide that rush, that sense of euphoria that you read about in textbooks. Even if it is going to the radiology department for getting MRI and CAT scan reports or

getting elated when you finally hear the most talked about VSD murmur! Going to references sure has its own perks and being in the restricted area of operation theatre and watching surgeries take you to a whole different level of astonishment and wonder.

From the cry of a newly born to the silence of the departed ones we have seen the circle of life and realized that we might not be able to save the world but we might be able to save the man in front of us. For most of us, those sincere words 'I want to be a doctor to heal people and save humanity' represent the noble purpose of medicine which first attracted us to this field. But more often than not, as the years go by, such words lose their meaning as the stressful years of medical school and residency and the sleepless nights take its toll in the minds of idealistic young doctors leaving them cynical and disappointed. BUT all those who have entered this field are the ones who were insane enough to dream of it, pray for it, work tirelessly for it and live for it. It is for those who want that sense of purpose that fuel their veins. And as Mahatma Gandhi said 'The best way to find yourself is to lose yourself in the service of others'.

The world mocks about medical courses stretching till eternity. It has been half a decade already for us and we haven't even taken off. Well, some runways are longer and rightly so.

EVER SEEN A LIFE SAVING MACHINE? I HAVE...

Dr. Nikhil Chauhan, Post-graduate Resident, Department of General Surgery, GMCH, Udaipur.



Dr. Nikhil Chauhan

Pulsating sound of that arrhythmic makes you anxious and gains all your attention at one instant beep of it. Weird giant and tiny, sharp and blunt, curved and straight pieces of steel that too infinite in number on a table over a green cloth. Green! Oh don't talk about green; every second thing out there is green which you are not supposed to touch. Yes I'm talking about a

place where I've never been before and I am going to spend the rest of my life doing the same thing which, those earnest- tucked faces with eagles' eyes all around in that room in a pensive mood. And this place is called an operating table.

Only one thought striking at my mind "can I be a chunk of a puny thing which could be of any help to the procedure going on here". I started getting closer to the table and it took all the guts inside me to take those few steps. At first I did not even know where to stand and

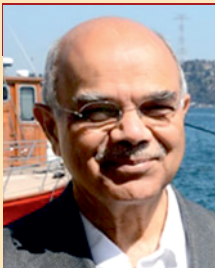
then I managed to find a small space and peep on to it. There were several red blood shredded hands and blood stained instruments. And there was nothing that I could figure out what was happening there, and all of a sudden I was asked to get scrub and join in.

I was highly strung while a scrub nurse comes and directs me to the scrubbing station. They say about the scrub nurses that "they're present in the OR for two main reasons i.e. first is to hand over instruments to the surgeon and second is to make the residents life miserable" and surprisingly it's true. Their unwanted do's and don'ts and instructions will make you feel like you're an obstacle in the OR and the cause of it is idiopathic.

Finally I joined on the table, I could feel the heart of the focus lights over my head. A retractor was held in my hands to retract the abdomen from one side. I had never seen an open abdomen in my

life and this was the first time I touched it. It was definitely not as fragile I thought it would be, it was thick and durable. The smell of cauterization burn like something's roasting and mouth watering, and the amount of adrenaline that was secreting rather gushing into my body, made me feel that yes I am right now being a part of perplexing job which is absolutely unrivalled. And by this time the surgery was about to come to an end. And after the closure of abdomen my unit head thanked everybody for their assistance and got dewashed. While he was taking off his gown it looked like a great warrior taking off his green armor and assets after a victorious war.

And while he walked out of the OR, for the first time I was able to feel and appreciate the flamboyance of a surgeon which is absolutely justified by the galvanizing job he does in emergency situations and hence is called a life saving machine.



Syed Tasnim Raza

USE OF 3D PRINTING IN THE MEDICAL FIELD

Syed Tasnim Raza, Medical Director, Cardiac Surgery Step-Down Unit at Columbia University Medical Center and New York Presbyterian Hospital

It may not be an exaggeration to say that within the field of medicine the most progress made in the last few decades is in the field of clinical imaging: starting with simple X-rays to computerized axial tomography (CT scan or CAT scan), magnetic resonance imaging (MRI), functional MRI (fMRI), positron emission tomography (PET scan), single photon emission computed tomography (SPECT scan), nuclear tagged scanning such as Ventilation/Perfusion scan to rule out blood clots in the lung (V/Q scan). And then there is Ultrasonography, which has been extensively used in diagnostic and also therapeutic interventions in many body cavities such as amniocentesis during pregnancy, or drainage of an inflamed gall bladder or evaluating kidneys for stones, or for evaluation of arteries and veins, etcetera.

Ultrasonography is also used extensively in imaging of the heart (Echocardiography), and is used for M-mode, 2D or 3D imaging. Cardiologists have used various imaging modalities for diagnosis of heart conditions. These include echocardiography as mentioned above, diagnostic heart catheterization in which a catheter is passed from the groin into the heart via the Femoral artery or vein, while watching the progress under x-ray. They perform contrast studies by

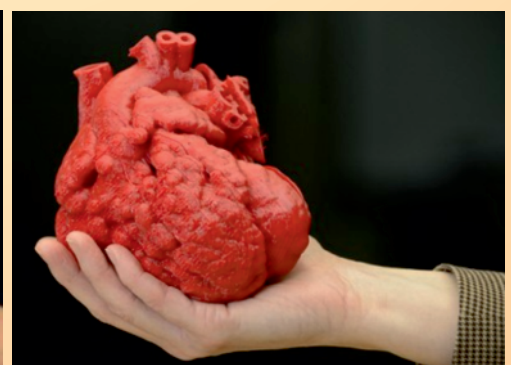
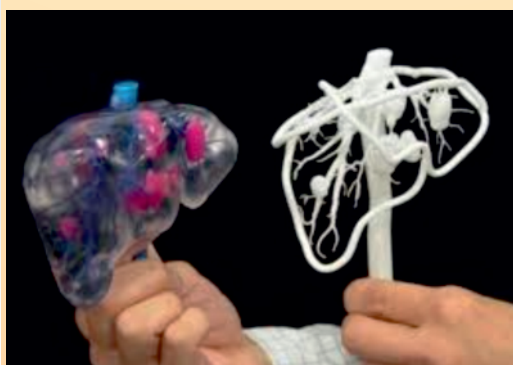
injecting radio-opaque material in the heart chambers or blood vessels while recording moving images (angiograms). And then there is Computed Tomographic Angiography of the heart (CTA) with its 3-D reconstruction, which provides detailed

information of the cardiac structure (Structural Heart Imaging).

Now comes 3D printing, adding another dimension to imaging of human body. In its current form, using computer aided design (CAD programs), engineers develop a three-dimensional computer model of any object to be "printed," (or built), which is then translated into a series of two-dimensional "slices" of the object. The 3D Printer can then "print" or lay thousands of layers (similar to ink or toner onto paper in a 2D printer) until the vertical dimension is achieved and the object is built. Within the last few years this technology has been utilized in the medical field, particularly in surgery. It is another stage in advancement of "imaging" of the human body. In the specialty of cardiac surgery, 3D printing is being applied mostly in congenital heart disease. In congenital heart malformations, many variations from the normal can occur. With current imaging techniques, surgeons have a fair idea as to what to expect before going to operate, but many times they have to "explore" the heart at surgery to really find out the exact malformation and then plan the operation at the spur of the moment. With the advent of 3D printing, one can do a CTA scan of the heart with its three-dimensional reconstruction, which can then be fed into the 3D printer and a model of the malformed heart can be created. The surgeons can then study this model and even cut slices into it to plan the exact operation they will perform and save valuable time during the procedure itself.

Three-dimensional printing is being applied in many areas of medicine, particularly in orthopedics. One of the more exciting areas is in use of 3D printing for making live organs for replacements using living cells and stem cells layered onto scaffolding of the organ to be "grown," so the cells can grow into skin, ear lobe or other organs. One day in the future, organs may be grown for each individual, from his/her own stem cells, obviating the risk of rejection and avoiding the poisonous anti-rejection medicines. Exciting development.

Source: <https://www.edge.org/response-detail/26708>



मिली ताकत हमारी कोशिशों को आपके विश्वास से...
दौड़ी हजारों दिलों में धड़कने कामयाबी से...

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(Angiography, Angioplasty, Device, Pacemaker etc.)

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(By-pass, Valve Replacement,
Congenital Heart Diseases' Surgery)

2000+

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- Angioplasty
- Pacemaker/ICD/CRT
- Valves' Balloon Surgery
 - BMV
 - BAV
 - BPV
- ASD Device

- VSD Device
- PDA Device
- Cardiac Implant Closure Devices
- Peripheral Interventions
- Aortic Aneurysm Stenting
- Rotablation, IVUS
- Treatment of veins by state-of-the-art techniques



- By-Pass Surgery
- Valve Surgery
- Cardiac Implant Closure through surgery (ASD, VSD, PDA)
- Congenital Heart Diseases (TOF, TGA, TAPVC)



- Peripheral Vascular Surgery
- Aortic Aneurysm (Open+TEVAR)
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- Lobectomy, Pneumonectomy

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