Study MEDIC

FUTURE TO MEDICINE

StudyMEDIC

APR 2024

Managing PCOS

Effect of Tongue Tie on Breast Feeding

Interview Dr. Hashmat Faheem

Winner of the Fortuna Global Excellence Award 2023

Dr. Hashmat Faheem

Liver Chronicles

Insights into Jaundice & Liver Diseases

www.studymedic.com

WHAT IS INSIDE...!

VOLUME 19, APRIL 2024

Chief Editor : Dr. Sowmya N S
Editor : Anitta Verghese
Sub Editor : Mariya P J
Visual Effects : Syamjith A S

www.studymedic.com

For Queries
digitalmarketing@studymedic.com
+44 7341 981 539
+974 7108 81 81

CHIEF EDITOR'S MESSAGE

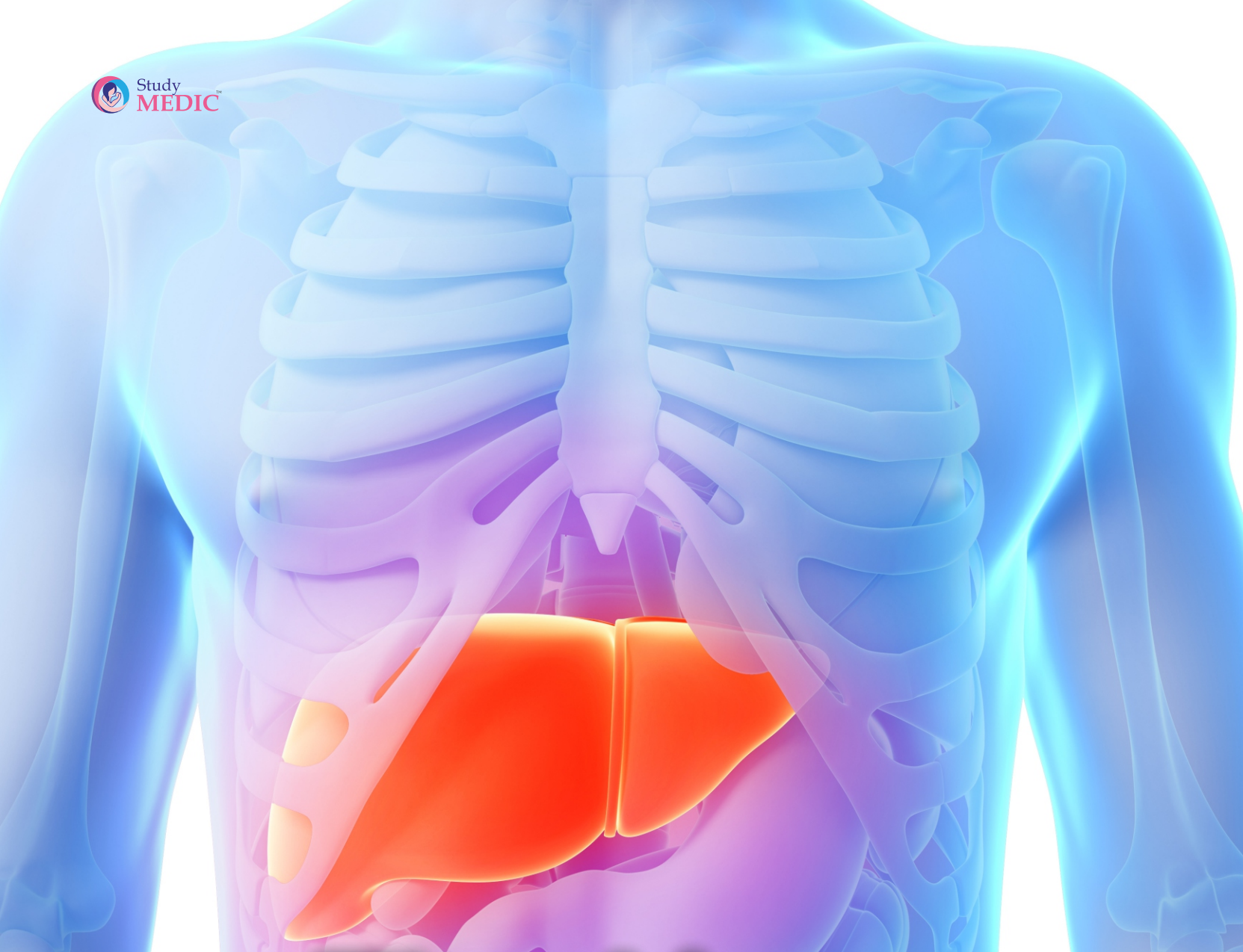
In the current landscape, with liver diseases on the rise due to modern environmental factors, it's imperative to shed light on the importance of liver health, especially as we approach Liver Day this April. As the hub of detoxification in our bodies, the liver plays a crucial role in maintaining overall well-being.

In our fast-paced world, it's easy to neglect this vital organ. However, prioritizing a healthy lifestyle is paramount. From mindful eating habits to regular exercise and minimizing alcohol consumption, small changes can yield significant benefits for liver health.

This Liver Day, let's pledge to nurture our livers and prioritize their well-being. Through awareness, education, and proactive health measures, we can ensure a brighter and healthier future for ourselves and generations to come. It's time to embrace a lifestyle that honors and supports our liver—an organ essential for our vitality and longevity.

With lots of love

Dr. Sowmya N S



The Liver Chronicles

Insights into Jaundice and Liver Diseases

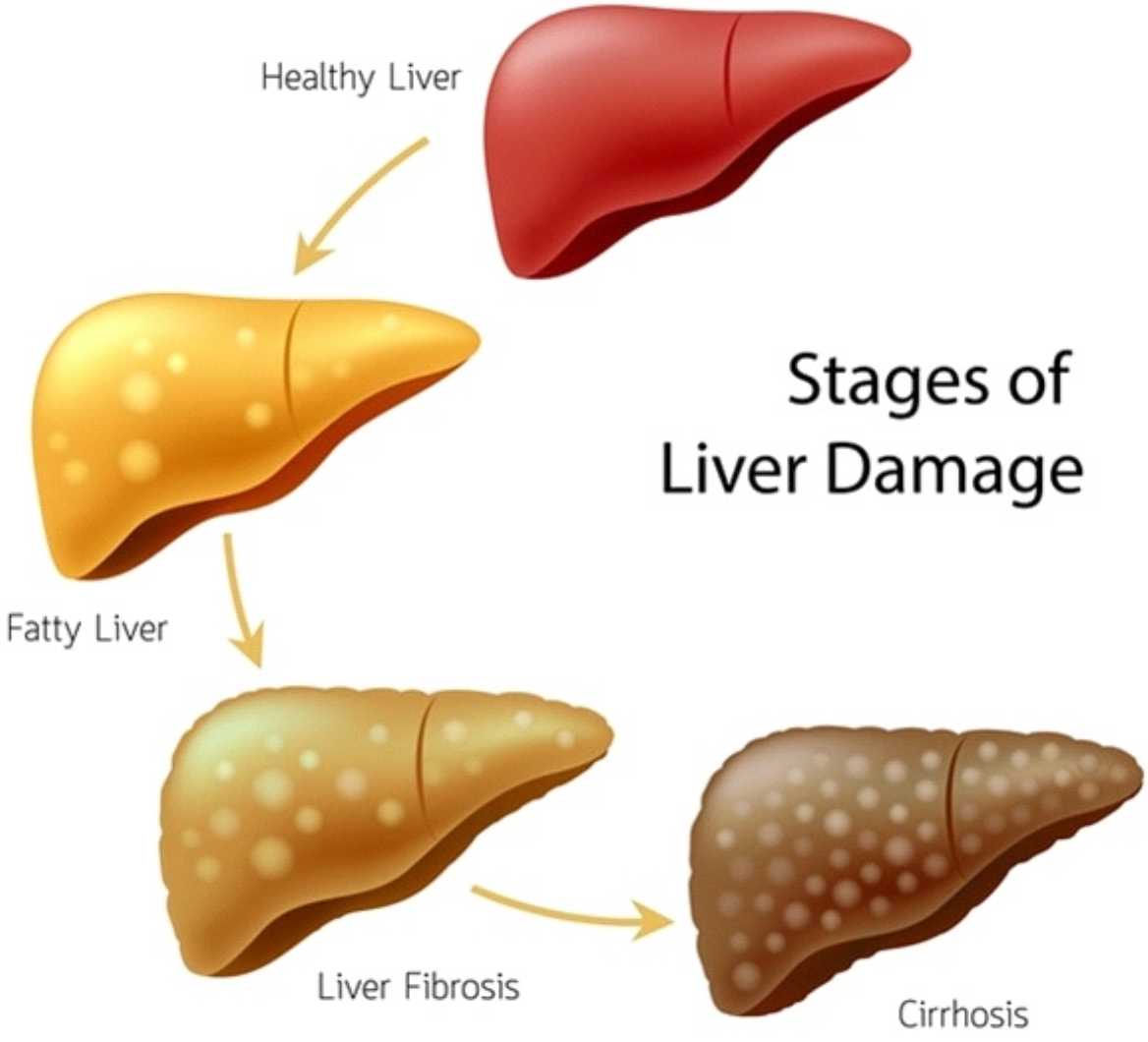
Dr. Ravindra B S
MBBS,MD,DNB (Gen.Medicine)
DM (Gastroenterology),
EUS Fellowship Denmark
ESD Fellowship Korea
Director, Gastroenterology Herpetology

The liver, weighing approximately 1500 grams, is a vital organ nestled in the upper right quadrant of the abdomen, intricately linked with the processes of digestion and metabolism. Responsible for over 500 metabolic functions, ranging from synthesizing essential products like glucose and plasma proteins to detoxifying the bloodstream, the liver is indispensable to our well-being.

Liver diseases manifest in various forms, with diverse etiologies. From the burgeoning epidemic of Metabolic Dysfunction Associated Fatty Liver Disease (MAFLD) to the pernicious impact of alcohol consumption and the stealthy infiltration of viral hepatitis B and C, these conditions pose significant health challenges. Additionally, autoimmune disorders like Wilson disease add to the complexity of liver pathology.

Recognizing the Symptoms:

The symptoms of liver diseases often masquerade in subtle forms initially, with patients reporting fatigue, anorexia, and nausea. However, as the condition progresses, ominous signs such as jaundice, abdominal swelling, and even altered mental status may emerge, signaling advanced stages of liver dysfunction. Moreover, the specter of liver cancer lurks in the shadows, underscoring the urgency of timely diagnosis and intervention.



Evaluating Jaundice and Liver Diseases:

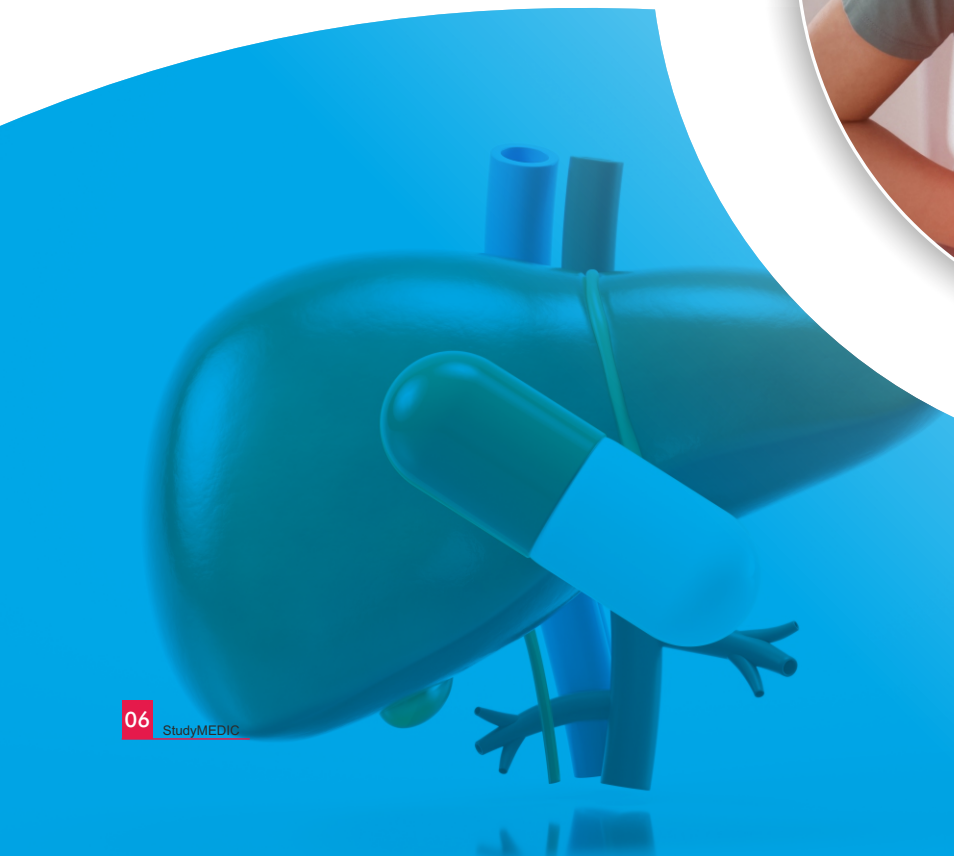
A comprehensive evaluation of jaundice entails a battery of tests, including Liver Function Tests (LFTs), viral markers for hepatitis, Prothrombin Time (PT), International Normalized Ratio (INR), and abdominal ultrasound. These investigations serve as the frontline defense against the spectrum of liver pathologies, from assessing intrahepatic bile radicals to delineating the presence of cirrhosis and fatty liver disease.

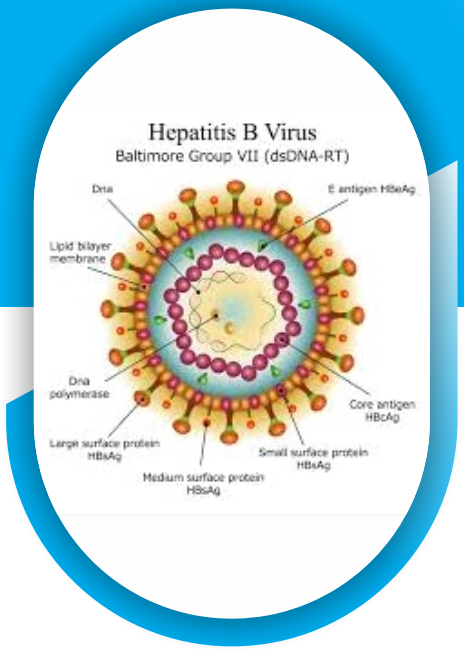
Distinguishing between medical and surgical jaundice hinges on meticulous analysis of biochemical markers and imaging studies. Elevated levels of Aspartate Aminotransferase (AST) and Alanine Aminotransferase (ALT) accompanied by normal Alkaline Phosphatase (ALP) and Gamma-Glutamyl Transferase (GGT) signify a medical etiology, while the converse suggests a surgical or obstructive cause.

Navigating Treatment Landscapes:

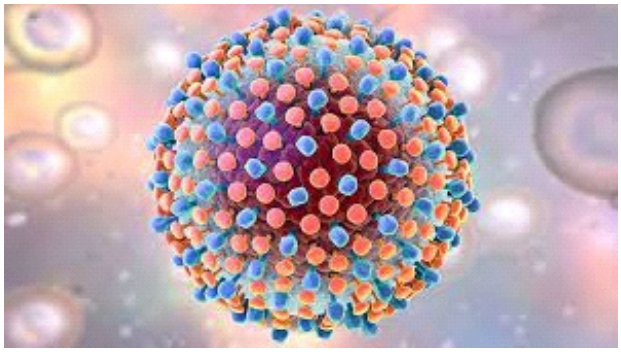
The management paradigms for various liver diseases demand tailored approaches. In the case of MAFLD, lifestyle modifications, including weight reduction and regular exercise, form the cornerstone of therapy. Pharmacological interventions such as Vitamin E and Saroglitazar offer adjunctive benefits in select cases.

Hepatitis B presents a persistent challenge, affecting a significant proportion of the population in India. Timely initiation of antiviral therapy, guided by meticulous monitoring of viral load and liver enzymes, can mitigate the progression to cirrhosis and hepatocellular carcinoma. Dispelling prevalent myths surrounding Hepatitis B, particularly concerning marriage and pregnancy,underscores the importance of accurate information dissemination.





The advent of direct-acting antivirals has heralded a new dawn in the management of Hepatitis C, offering unprecedented cure rates and hope for eradication. Alcoholic liver disease, however, remains a formidable foe, necessitating a holistic approach encompassing abstinence, supportive care, and judicious use of adjunctive therapies.



Embracing Innovations: Technological advancements such as Fibroscan provide non-invasive insights into liver fat and fibrosis, revolutionizing diagnostic algorithms and prognostic assessments. Furthermore, the evolution of liver transplant surgery heralds a ray of hope for patients with end-stage liver disease, promising survival rates exceeding 70% at ten years post-transplantation.

Key Takeaways

In the ever-evolving landscape of liver diseases, staying abreast of emerging terminologies like MAFLD and embracing evidence-based interventions are imperative. From advocating for vaccination against Hepatitis B to promoting healthy lifestyles, the onus lies on healthcare providers and policymakers to mitigate the burden of liver diseases and safeguard public health.

In conclusion, deciphering the enigma of liver diseases demands a multifaceted approach encompassing early detection, personalized treatment modalities, and a commitment to preventive strategies. By fostering a collaborative ecosystem bridging clinical expertise with technological innovations, we can strive towards a future where liver diseases are relegated to the annals of medical history.

Setting the Bar High

Dr. Hashmat Faheem's Contributions to Emergency Medicine and Critical Care

Dr. Mohammed Hashmat Faheem, the winner of the Fortuna Global Excellence Award, is known for his outstanding achievements and commitment in the field of Emergency Medicine. With over a decade of experience and now proudly holding the title of Emergency Medicine Specialist of the Year in the UAE, Dr. Faheem's expertise spans diverse areas, including working as an Air Ambulance Physician, delving into Maritime Medicine, and handling various emergency situations. With a great passion for Ultrasound and Trauma in Emergency Departments (ED), Dr. Faheem has also contributed to two topics in a prestigious series of books for FRCEM, UK. A dedicated advocate for education, Dr. Hashmat Faheem, StudyMRCEM Mentor, shares his insights for aspiring emergency medicine aspirants.

What inspired you to pursue a career in Emergency Medicine?

When I finished my medical MBBS graduation, my initial inclination was towards surgery. I was quite good at practical skills rather than just sitting and reading. I joined the Department of Emergency Medicine in one of the renowned hospitals, and from there, I had the opportunity to take responsibility for taking care of patients in the Emergency department. From there, I understood that Emergency medicine is not just about any single specialty; it caters to the best of all specialties. As one of my mentors earlier said, the best 15 min of every specialty is emergency medicine. I kept working along those lines, and finally, my interest shifted towards emergency medicine.

How do you feel after being nominated and finally achieving coveted recognitions like the Health 2.2 conference awards & the recent Fortuna Global Excellence Award?

I was very delighted to receive these recognitions because, first and foremost, these nominations came directly to me through the qualifications I had and the recommendations from my peers and other doctors across the country and states who thought that I am doing a really good job in the field of Emergency medicine .This is very honourable for me to win these awards, one as a specialist in emergency medicine from Fortuna and the other for outstanding leadership from Health 2.2.

I would like to express my gratitude to my mentors, especially Dr. Satish Kumar, as well as my colleagues like Andrakanth and Dr. Shanmukh, along with all the students and everyone who has supported me along the way.

From your perspective, what contributions have set you apart from other nominees and helped you achieve the title of Emergency Medicine Specialist of the Year | UAE?

There are so many doctors here who are doing wonderful jobs in the field of emergency medicine. I'm not saying that I'm far better than others, but my experience, academic activities, and the projects I have taken part in Emergency Medicine have helped me to stand out.

The very first one is that I was into teaching. I am quite passionate about ultrasound, especially ultrasound in emergency medicine. I have done several research studies, including work on airway ultrasound, with a special publication on that topic.

The second one is, I've the experience of working on air ambulance projects that are in advanced stages now. Apart from that, I run a busy department, and I think about all of the other features, along with recommendations from my peers, students ,mentors, everybody who thinks I have been a good student when I was junior, a good leader when I was a team leader, and a good specialist now, paved the way towards this achievement.

As you have been part of different Air Ambulance Escort missions & maritime medicine, can you brief your experience ?

I did a certification program while I was in the United States and was part of a couple of air ambulance missions over there. I also have experience in maritime medicine, having worked on passenger cruise liners with 4,000 to 5,000 passenger capacity ships, serving as the physician on those vessels. Even when I returned to India, I was part of a couple of intercity missions.

All I was trying to do is learn emergency medicine in different horizons and areas where I could improve myself. I'm trying to inculcate this into my regular practice so that something good comes out of it, and I can share it with others. We learn more, and then we provide better care for the patients and families, opening new horizons.

While dealing with various kinds of Emergencies/high-pressure situations, what are the things an emergency medicine expert needs to take care of? Could you share some challenges you've faced in your career and how you addressed them?

The first and foremost thing is that you need to be calm in all situations. There will be moments where you will be seeing patients and you are not very sure of what to do in those situations. Getting into stressed and directionless situations are uncommon things that you face in emergency medicine. But what helped me, Be calm & do the basics always right .

Call for help - This is the rule I apply. Never think that you are the best, and you know everything. Nobody knows everything but always remember to stick to your basics. No matter how experienced and good you are, this is always the best idea in the interest of the patient that you call for help. Even if you are the senior most, you can actually get help from your colleague, from some other specialty. This is what I try to follow, not because I do not know the subject. Of course, I do know the subject, but I care about the patient, and I want the best outcome for the patient.

While talking about challenges, you have to basically trust your own instinct. Stick to the basics and try to do your best you can do for the patient. Challenges will always be there while handling

patients and the patient families. For example, if you consider the pediatric population, children themselves are the patients, but the parents can also be the patients.

In fact, MCEM Courses teach how to communicate in these kinds of situations, how to break the bad news to family, in the kind of situations when the patient has died. All these things are being trained. But remember, it can't be simply transactional; there always remains an emotional touch. The more you get into it, the more you keep practicing on it, you will be able to deal with such situations.

What are the preparation tips one needs to follow while preparing for the MRCEM examination? Can you suggest some tips and resources based on your preparation?

The first and foremost thing is sincere study. Since MRCEM gives 6 attempts for primary, Intermediate, and OSCE, what I have noticed in many of the students is that,many people just take a chance on. Let's see, in the first attempt. If I don't make it, let's see in the second attempt- this kind of attitude needs to be avoided. Give your best in the first attempt. Once you clear your exam, then you will have a continuous flow that will keep you moving on.

The second thing is to follow the curriculum. Many people make the mistake of not following the curriculum and just going on and reading books from cover to cover. This is the thing I don't advise to the students. There is a specific curriculum for specific topics. Nobody will ask you the questions out of that. You have to keep the curriculum from your side. Do not study what is not required.

Third thing, always go for recall questions. RCEM gives a lot of recall questions, and that is a very easy thing that one can score. When students are giving exams, I think these 3 pointers will help them in getting good scores

How crucial is clinical experience and hands-on training in emergency medicine?

The second and third parts of MRCEM exams are based on purely emergency medicine core areas . Here the questions will be from clinical practice, ie, what you're doing in the department of Emergency medicine. I strongly suggest that you do have good clinical exposure. When you actually have an experience on how to deal with the patient in front of you, it will help you in the real ground of the MRCEM Intermediate and OSCE examination.

You've contributed two topics to the Issa Moussa series of Books for FRCEM, UK. Could you share your insights on this experience?

I think many of the students are aware of the books that are usually helpful in these MRCEM intermediate exams. The question banks and one of the books also called Isa Moussa , which is quite famous for FRCEM. And I have contributed in my best capacity. I'm thankful enough to Dr Moussa Issa for giving me this opportunity to be a part of that book. This is for the intermediate FRCEM , where I have contributed to topics like pneumonia and sepsis.

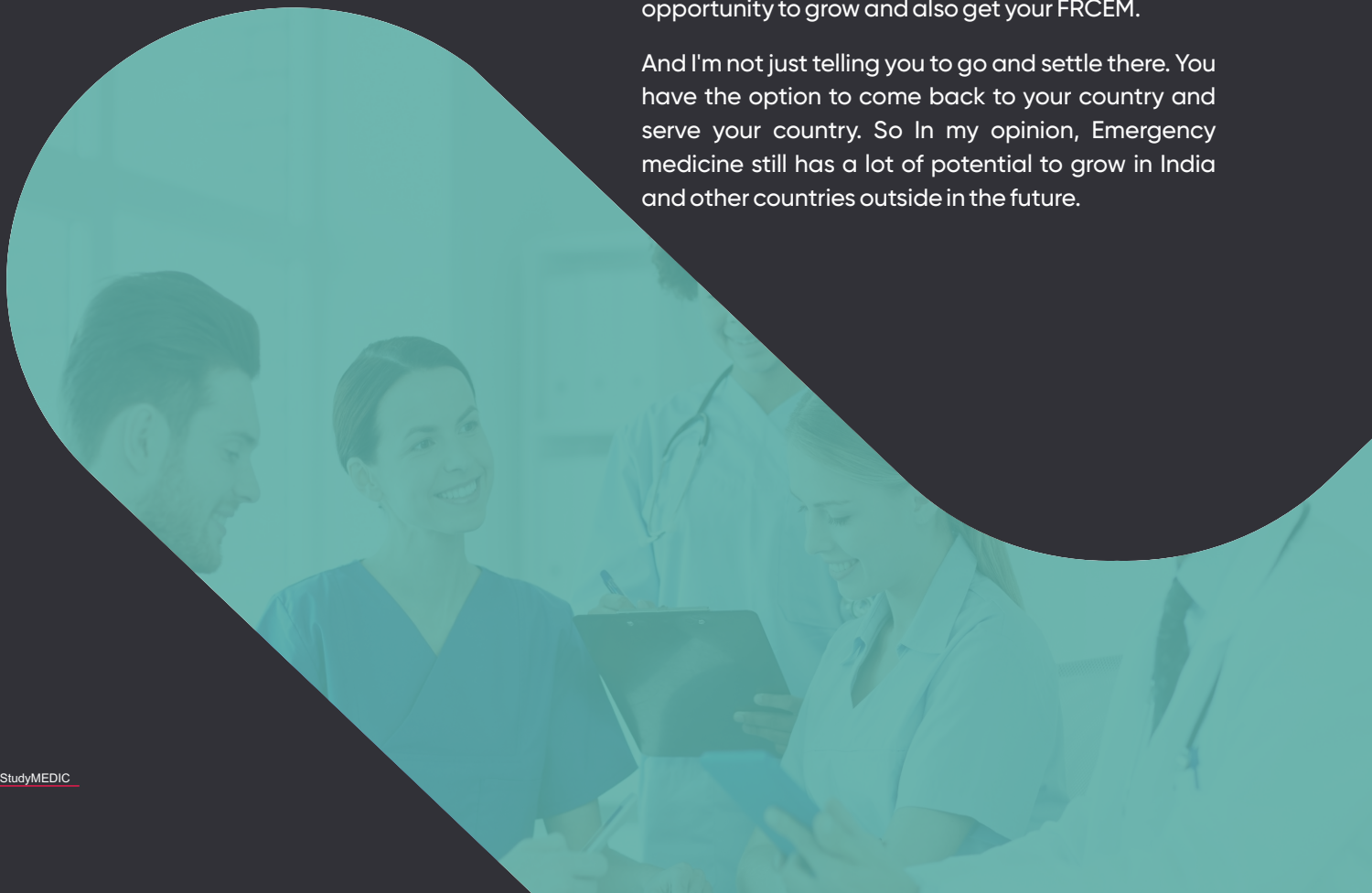
What about the potential scope of Emergency Medicine in the future? As you were more passionate about Ultrasonography and Trauma in ED, what areas may have big growth in the coming days?

I am quite passionate about treating trauma patients and dealing with ultrasound in trauma in emergency medicine. Emergency medicine is a relatively newer branch of medicine. It has been well established since the 1960s and 1970s in the US and the UK. But in India and newer Middle Eastern countries, it is still a new specialty.

There is a lot of scope in emergency medicine in the present era. In the future, all the hospitals, major and minor, will be equipped with full-fledged emergency departments with level one trauma centers and there will be a need for a lot of emergency physicians.

The UK is already facing a shortage of emergency medicine professionals. From what I know, Uk is actively hiring emergency physicians for their NHS institutes and universities. So that is a very good opportunity to grow and also get your FRCEM.

And I'm not just telling you to go and settle there. You have the option to come back to your country and serve your country. So In my opinion, Emergency medicine still has a lot of potential to grow in India and other countries outside in the future.



What about your journey with StudyMEDIC as StudyMRCEM Mentor?

I think StudyMEDIC has been doing a wonderful job. Although MRCEM is relatively new for StudyMEDIC, the expertise, innovation, and hard work invested to bring in qualified mentors have given it a great kick start, and I really appreciate that.

In a short amount of time, we've seen many students join primary, intermediate, and OSCE groups, which is delightful. The rapid growth of StudyMRCEM is specifically noteworthy. I extend my thanks to all the mentors, course directors, and everyone on the team for their efforts.

I'm too delighted and honored to be part of the StudyMRCEM team. By being part of this team, it also helps me to stay updated with new theories and examination patterns. When I assist students, it also refreshes my knowledge about teaching aspects of emergency medicine, which is crucial for any physician.

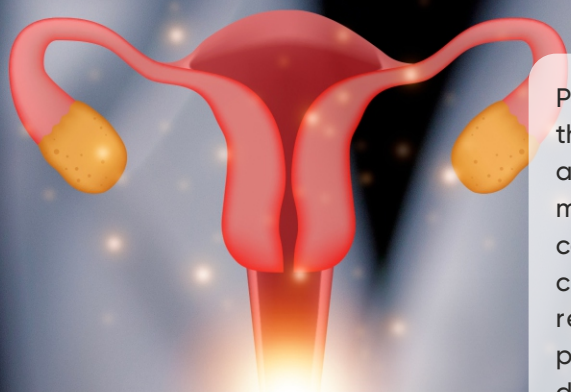
I really appreciate the idea of StudyMEDIC being more diverse in terms of providing education. Definitely, I would like the opportunity to be a part of it.

What advice do you have for MRCEM aspirants?

Emergency medicine is a rapidly progressing and advancing specialty nowadays, especially in India, and it has a lot of scope outside India as well. So, students who are aspiring to be in emergency medicine, I would advise and congratulate you first of all that you have chosen emergency medicine, and you cannot go wrong with this decision. There are a lot of opportunities for growth and advancement in this field. You have the chance to grow and get yourself promoted quite rapidly in this field and become pioneers in this field in the near future.

Managing PCOS

Strategies for Health and wellbeing



Polycystic ovary syndrome (PCOS) is the most common endocrine problem affecting women from adolescence to menopause (10-13%). The aetiology is complex and so is the heterogeneous clinical presentation ranging from reproductive to metabolic, and psychological symptoms. There can be delays in the diagnosis with variable approaches to both the assessment and management. International evidence-based guideline for the assessment and management of polycystic ovary syndrome (PCOS) published in 2023 by ESHRE gives a clear approach to provide consistent, evidence-based care for women with PCOS to optimise their health outcomes.

Dr. Srimathy Raman
MD FRCOG CCT (UK)
Consultany OBG;Rangadore Memorial Hospital,Bangalore

Diagnosis

PCOS should be diagnosed using the revised consensus Rotterdam criteria which requires the presence of two of the following:

(1) Clinical/biochemical hyperandrogenism.

(2) Ovulatory dysfunction; and

(3) Polycystic ovaries on ultrasound or elevated anti-mullerian hormone (AMH) levels, after other causes are excluded.

If both irregular menstrual cycles and hyperandrogenism are present, then ultrasound or AMH are not required for diagnosis. However, in adolescents, ultrasound and AMH are not recommended and both hyperandrogenism and ovulatory dysfunction are required.

Step 1

- Irregular menstrual cycles-3 years post menarche : <21 or >35 days
- Clinical Hyperandrogenism-Acne, female pattern hair loss and hirsutism-modified Ferriman-Gallwey score (mFG) of 4-6

Step 2

- Test for biochemical hyperandrogenism(if no clinical features)-Total and free testosterone.

Step 3

- Either serum AMH or ultrasound may be used to define PCOM
- Ultrasound for PCOM apperaramce-Follicle excess-Follicle number per ovary (FNPO) = 20 in at least 1 ovary; follicle number per section (FNPS) = 10 in at least 1 ovary and/or ovarian enlargement with Ovarian volume (OV) = 10 mL
- Adolescents-US criteria/AMH not recommended

Management

Once the diagnosis is done, all women with PCOS should be assessed for cardiovascular risk factors and symptoms suggestive of OSA. BMI, BP, glycaemic status (75 gms OGTT or FBS and HbA1c) and serum lipid profile should be checked. Routine testing for insulin resistance is not recommended. Screening for mental health disorders like anxiety, depression, eating disorders, problems with body image, low self-esteem and psychosexual disorders is important because of the increased association noted with PCOS.

Management should be multidisciplinary and address reproductive, metabolic, cardiovascular, dermatologic, sleep and psychological components.

Lifestyle changes

Lifestyle management is a key focus in PCOS management and involves advice on healthy eating and physical activity. This helps in improving metabolic health by improving insulin sensitivity, and lipid profile and helps for psychological wellbeing. There is a lack of evidence pointing to any diet or exercise regime and so it should be tailored to the individual circumstances and needs.

Anti-obesity medications and Bariatric/metabolic surgery could be considered, in addition to active lifestyle interventions to improve weight loss and management of hypertension, diabetes, and improve pregnancy rates in women with PCOS.

Management of hirsutism

Combined oral contraceptive pills are the first-line pharmacological treatment for the management of hirsutism and/or irregular menstrual cycles. There is no specific recommended preparation but usually, the preferred regimes are those with lower ethinyl oestradiol dose and those with less progestogenic side-effects. COCPs with antiandrogens could also be considered to treat hirsutism if there is a suboptimal response after a minimum of 6 months of COCP and/or cosmetic therapy.

Anti-androgens like Spironolactone at 25-100 mg/day alone can be considered in women who have contraindications for COCP therapy or when COCPs are poorly tolerated. However, these women must have an effective form of contraception.

Metformin is recommended primarily for metabolic features and can be combined with COCPs. It has greater efficacy than inositol, which offers limited clinical benefits in PCOS.

Cosmetic therapies in the form of mechanical laser, light therapies, and topical treatments like eflornithine can be considered for reducing facial hirsutism along with pharmacological treatment. Psychological therapy, CBT and occasionally antidepressants may be needed to help with the mental health symptoms.

Fertility issues

- Women with PCOS can very often conceive naturally but they may need assistance with Ovulation induction. Letrozole should be used for ovulation induction instead of clomiphene citrate in women with PCOS with anovulatory infertility to improve ovulation, clinical pregnancy, and live birth rates.

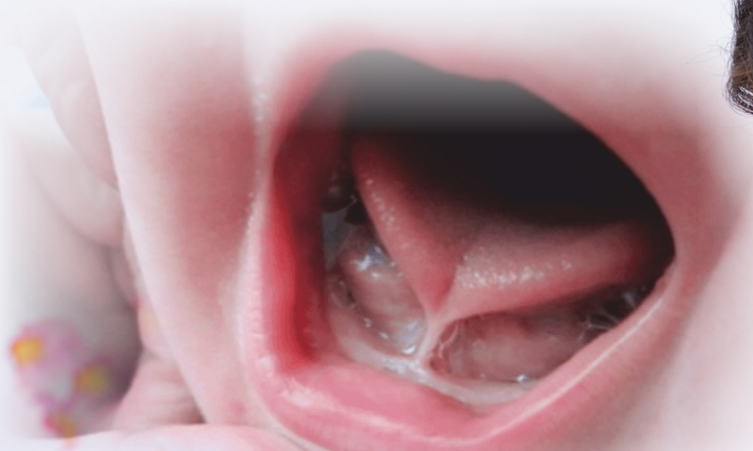
- Laparoscopic ovarian surgery could be considered as second-line therapy. When first- or second-line ovulation induction therapies have failed, IVF could be offered in women with PCOS and anovulatory infertility.

- PCOS should be considered a high-risk condition in pregnancy as they are at a higher risk of miscarriage, gestational diabetes, hypertensive disorders, preterm delivery, and caesarean section.

- PCOS women are at higher risk of endometrial cancer and should be informed of preventative strategies like weight management, as well as cycle regulation to avoid endometrial thickening

Conclusion

Women with PCOS need a lifelong reproductive health plan with a main a focus on healthy lifestyle, prevention of weight gain and optimisation of metabolic risk factors, diabetes, cardiovascular disease, and sleep disorders..



THE EFFECTS OF TONGUE TIE ON BREAST FEEDING

Dr. Nithin Selvakumar
BDS,MDS,FELLOW W.L.C.I (USA)
Dentist, periodontist and advanced implantologist, Laser specialist

Introduction

The most common symptom attributed to ankyloglossia is difficulty breast feeding due to poor latch, inefficient milk extraction and/or maternal nipple pain. Tongue tie (ankyloglossia) is caused by a tight or short lingual frenulum (the membrane that anchors the tongue to the floor of the mouth). The frenulum normally thins and recedes before birth. Where this doesn't happen, the frenulum may restrict tongue mobility. Tongue tie often runs in families and is thought to be more common in boys than girls. There is an association between high or unusual palates and tongue tie, because restricted tongue movement can affect the shape of the palate.the lingual frenulum has been considered a discrete cord or band of connective tissue with an anterioposterior orientation that tethers the tongue to the floor of the mouth. When the tongue is relaxed, the frenulum lies on the floor of the mouth, and when the tongue is elevated, the frenulum lifts with it. The general consensus is that tongue tie is an embryological remnant of connective tissue underneath the tongue that failed to recede by apoptosis and that adversely impacts tongue function. Breastfeeding challenges can also occur for other reasons. Identifying the cause is important when deciding on appropriate solutions.

Identifying Tongue Tie

When your baby tries to lift his tongue or move it forwards it may appear misshapen, short or heart-shaped, with the frenulum clearly pulling its centre down and restricting its movement. Or you may be able to see or feel firm tissue where his tongue meets the floor of his mouth. Degrees of tongue tie vary and it can be difficult to diagnose accurately. A short, tight, posterior tongue tie is rarer, but may be particularly hard to spot.

How Breastfeeding May Be Affected

Tongue tie affects tongue movement to varying degrees. The shorter and tighter it is, the more likely it is to affect breastfeeding. Some babies with a tongue tie breastfeed well from the start, others do

so when positioning and attachment are improved. But any tongue tie that restricts normal tongue movement can lead to breastfeeding difficulties. A baby needs to be able to move his tongue freely and extend it over the lower gum with his mouth open wide to be able to breastfeed well. The symptoms below are all associated with poor attachment that may be caused by tongue tie

- Be unable to latch on to the breast at all.
- Be unable to latch on deeply, causing nipple pain and damage.
- Have difficulties staying on the breast, making a clicking sound as he loses suction.
- Splutter and choke when coping with fast flowing milk.
- Breastfeed constantly to get enough milk.
- Have poor weight gain or need supplementation to maintain adequate weight gain.
- Develop jaundice that needs treating.
- Be fussy at the breast when the milk flow slows.
- Develop colic.

Breastfeeding Is Important For Every Baby

Though sometimes needed as a temporary supplement if mother's milk production is very low, introducing infant formula is not the answer. It has short-term and long-term health risks for both you and your baby. A baby with tongue tie can also have difficulties with bottle feeding. Milk may leak from his mouth during feeds and he may suffer from colic.Where a tongue tie is causing breastfeeding problems, treatment options are available and effective especially if the treatment is prompt. Although attention to positioning and attachment can help maintain breastfeeding and improve comfort to a certain extent, there is evidence that treating tongue tie by frenotomy is effective in resolving breastfeeding difficulties. Weight gain can improve dramatically. As well as the ongoing breastfeeding benefits, continuing to breastfeed after frenotomy maximises a baby's chance of normal mouth (palate), speech and dental development. This includes tongue mobility for licking and moving particles of food around the mouth, helping prevent tooth decay.

A mother may experience:

- Pain during feeds, with damaged nipples. Her nipple may be compressed or distorted into a wedge shape like that of a new lipstick immediately after feeding, often with a stripe at its tip.
- Engorgement, blocked ducts and mastitis because of ineffective milk removal.
- Low milk production because of ineffective milk removal.
- Oversupply if her baby compensates for not being able to breastfeed well by nursing very frequently.
- Tiredness, frustration and discouragement.
- A premature end to breastfeeding.

Keeping breastfeeding going: Mastering the art of breastfeeding can sometimes be a challenge and it takes determination to keep going if you are in pain. The information here can help you keep breastfeeding, both before and after treatment.

An unusual palate: Restricted tongue movement caused by tongue tie may affect the shape of a baby's palate, leading to a high palate or a bubble palate with a high spot. These may be a factor in broken suction, a clicking sound and pain during breastfeeding. A baby with an unusual palate may also resist a deeper latch due to gagging.

The following may help:

- Start with a clean finger with closely trimmed nail.
- Touch your baby's lips and wait until he opens his mouth.
- Gently slide in your finger, pad side up along his hard palate, stopping just before the gag reflex is triggered.

Ankyloglossia, or tongue-tie, is a common congenital abnormality where the lingual frenum is overly short and tight (posterior ankyloglossia) or aberrantly attached anteriorly to the ventral surface of the tongue (anterior ankyloglossia),[1] "tying" the tongue to the floor of the mouth. Frenotomy—dividing the tongue tie—can dramatically improve breastfeeding comfort and efficiency for both mother and baby. Dividing a tongue tie is a quick and simple procedure. No anaesthetic is needed for a baby under six months of age.In some countries there are health professionals who have been specifically trained to divide tongue ties. For treatment you may need a referral from your midwife, doctor, pediatrician or other healthcare professional. Knowledge about tongue ties and how they affect breastfeeding varies, so it is worth persisting and seeking a second opinion.

Is waiting an option?: Sometimes a very thin tongue tie breaks spontaneously or can be stretched by gentle massage of the frenulum. The earlier a tongue tie is divided, the easier it is to resolve any breastfeeding difficulties. Dividing a tongue tie in a baby over six months is also a more complicated procedure and usually requires a general anaesthetic.

Does it hurt?: No anaesthetic is needed for a very young baby as having a tongue tie divided only hurts a little, if at all. Some babies protest more at being swaddled than about the treatment. Others sleep right through the procedure! You will be asked to breastfeed your baby as soon as the procedure is over, to offer comfort, clean the wound and get his tongue moving as soon as possible. The inside of a baby's mouth heals very quickly. The only treatment usually needed is to breastfeed to keep the wound clean and keep his tongue mobile. There may be a white patch under your baby's tongue, but this heals within 24 to 48 hours.

If things don't resolve: Usually a mother notices an instant improvement in her comfort during breastfeeds. Sometimes it takes a week or two for a baby to adjust to his tongue's greater mobility. An older baby may find it harder to adjust to increased tongue mobility and tongue exercises may be recommended. Occasionally a baby's frenulum needs dividing a second time, usually because the division was not quite extensive enough the first time.

Painful nipples: Using different feeding positions can help if breastfeeding is painful. Use the position you find most comfortable until your nipples heal. Check your baby's attachment later in the feed—if he slips down your nipple, this may cause you pain. Reclining breastfeeding positions or extra support under your arms may help

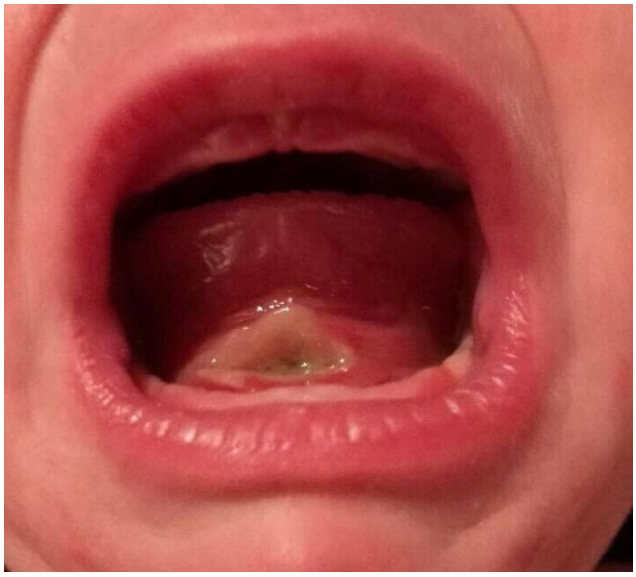
TREATMENT

The tongue is an important morphofunctional organ which is largely responsible for orofacial development and growth. Ankyloglossia has been linked to abnormal (deviant) suction swallow pattern in newborns[2-4] and chewing in infants; it frequently leads to speech disorders.[5] Aberrant lingual frenum results in low tongue position and tongue thrusting which contributes to the formation of high and narrow palatal vault – one of the features favoring collapse of the upper airway during sleep[6,7] – malocclusion, prognathism, distortion of "harmonic face"[8] with the mid third of the face smaller than the upper and lower thirds, and, most importantly, mouth breathing.[9] Mouth breathing may be a factor in tonsillar enlargement – it increases upper airway resistance[10] causing micro trauma to the back of the throat, inflammation and tonsillar growth. Hypertrophic adenotonsils, in turn, obstruct the airflow and exacerbate mouth breathing, and contribute to the abnormal orofacial growth. Therefore, tongue-tie potentially creates a vicious circle with the potential outcome in the form of sleep disordered breathing (SDB) and obstructive sleep apnea (OSA).

The tongue, which has origin and insertion points ranging from the internal portion of the mandible down to the hyoid bone, has many myofascial and muscular attachments to the cervical muscles. ... ankyloglossia is associated with hyperactivity of the suprahyoids and forward displacement of the head. The restricted tongue requires the use of accessory muscles to perform functions such as breathing, breastfeeding, chewing and swallowing. This hyperactivity of the cervical muscles causes shortening of the muscles and induces forward head posture.[11]Furthermore, ankyloglossia encumbers the proper function of a temporomandibular joint (TMJ). In the presence of restrictions, movements are compensatory leading to change in bony structure. Such change calls for further accommodations and compensations, which are stressors to the central nervous system. Attaining jaw stability is one of the most important goals of orofacial myofunctional therapy (OMT). Without jaw stability, proper function may not be achieved and the need for compensations is engaged.The anatomical changes seen with ankyloglossia lead to development of abnormal anatomic support of the upper airway[12] that is at a higher risk of collapse during sleep.

SURGICAL MODALITIES

A number of surgical modalities have been utilized for tongue-tie revision, such as scissors, scalpel, and electrosurgery. Most up-to-date techniques involve lasers. [13-17] The disadvantage of a conventional tongue-tie revision with a scalpel is intra- operative bleeding (which entails poor visibility of the site and creates the potential for scarring), need for sutures, post-operative discomfort, and the risk of infection. Use of electrocautery is not recommended in patients with old pace makers and in close proximity to orthodontic devices or implants; the thermal injury may prolong healing. Special attention must be paid to avoid thermal injury to the underlying periosteum and bone. With laser frenectomy, patients reported less post-operative pain and discomfort than with the scalpel.[14] Erbium lasers have been effectively used for lingual frenectomies, but the clinician needs to manage intra-operative bleeding, because erbium laser is not an efficient coagulator. CO_2 laser cuts while coagulating capillaries and small blood and lymphatic vessels; this creates a clear surgical site and helps minimize post-surgical edema. Typically, tongue-tie revision with the CO_2 laser does not involve suturing of the wound, and usually there is no scar. Minimal to no scarring is critical for post-operative OMT exercises that involve the tongue. Most of the time, patients quickly return to everyday routine immediately after the tongue-tie revision procedure, and are advised to follow the prescribed OMT program.



TONGUE-TIE RELEASE IN COMBINATION WITH OMT

The area to be operated on is much better defined when muscles are toned, therefore myofunctional therapy is a must before release of the frenum. Once restriction is removed, post-frenectomy OMT is also necessary in order to re-establish the swallowing, chewing, speaking and breathing patterns acquired as a result of the tongue-tie[18]. Repetition of the pattern entrains behavior which helps to establish jaw stability. Length of time of therapy before and after the release is established by the myofunctional therapist depending on the overall goals of the patient. Without such therapy, the incorrect swallow, speech impediments and compensatory posture and breathing habits remain, which can eventually lead to the relapse of OSA and a return of pre-operative sleep disordered breathing and other disorders.Understanding the continuous interaction between muscle activity of the tongue and other oral-facial muscles, as well as the development of normal anatomic structures supporting the upper airway may lead to expansion of myofunctional reeducation as a therapeutic tool.[19]

TONGUE-TIE FUNCTIONAL RELEASE

Surgical goals of tongue-tie release are different for infant and adult. Infant lingual frenectomy[14,20] pursues proper eating/breastfeeding and nasal breathing. Adult needs are much more diverse. Constant, repetitive, and incorrect use leads to deformation and damage done to orofacial structures that needs to be corrected. Therefore, the release is more extensive than for the infant, and it also involves the mandatory pre- and post-frenectomy myofunctional therapy.

- Pre-surgical OMT exercises to prepare and re-pattern tongue function once released;
- SuperPulse laser frenectomy, preferably under topical anesthesia and combined with Tongue Movement Assessment for ideal Release to achieve optimal function;
- Post-surgical OMT exercise program to ensure long-lasting functional results.

WHY LASER?

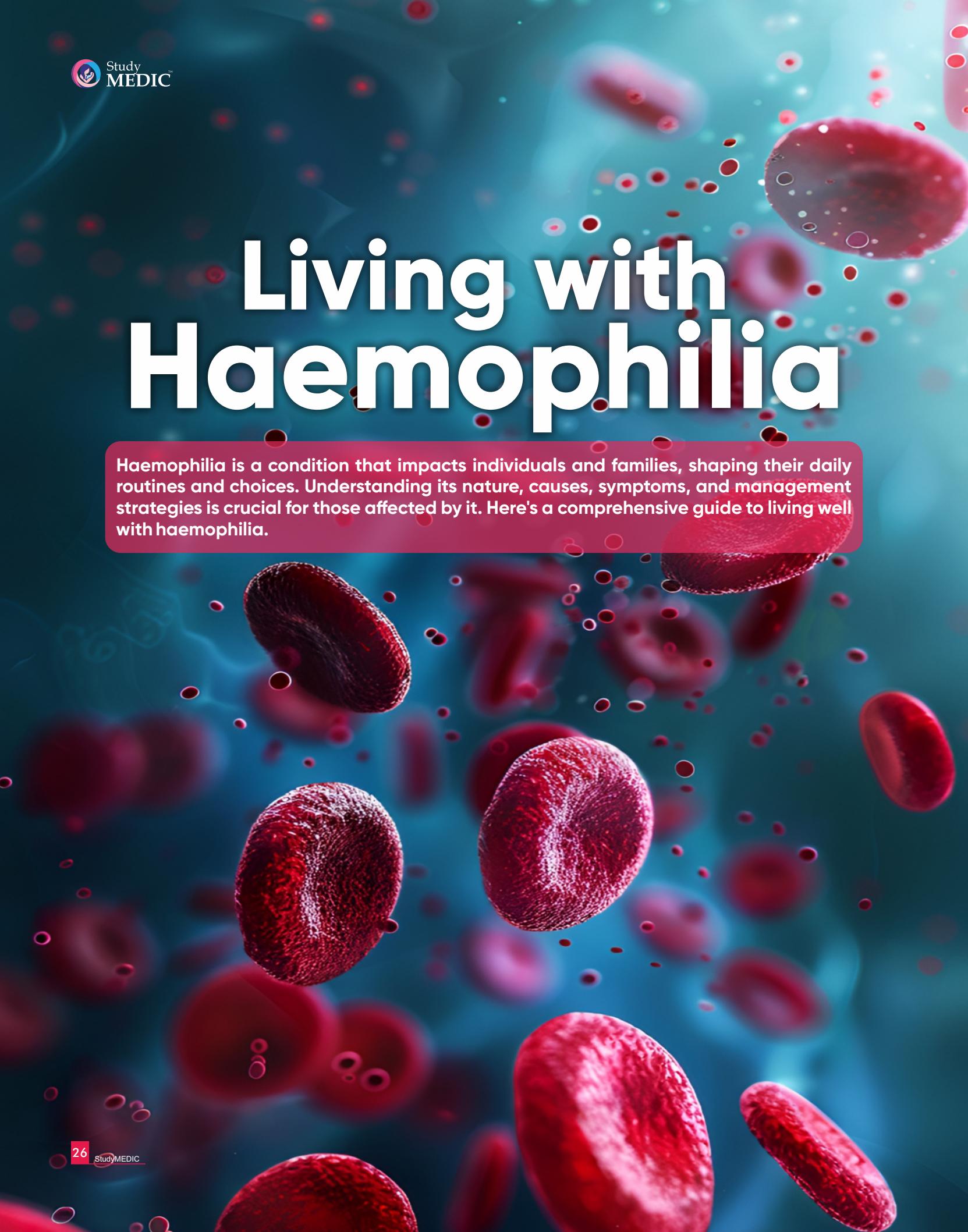
Not all lasers are equally efficient at both tissue vaporization (i.e., ablation or cutting) and coagulation. The difference is illustrated in the absorption spectra for main soft tissue chromophores. Combination of the Soft tissue laser wavelength and SuperPulse settings, which allows for a char-free and bloodless surgery. Controlled, repeatable and reproducible speed of tissue removal

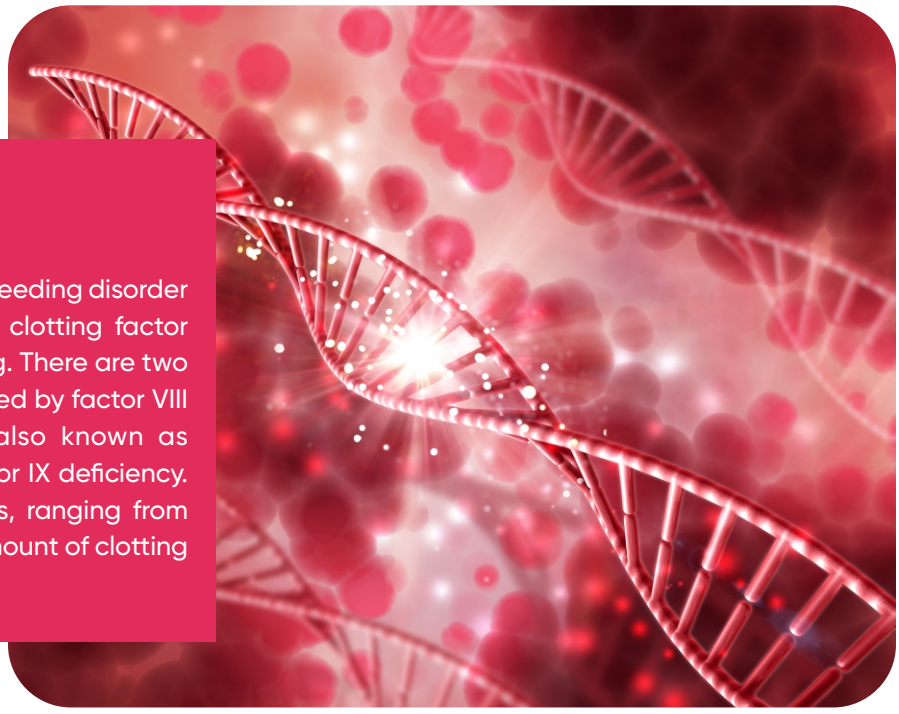
- Coagulation depth of SuperPulse laser closely matching the blood capillary diameters . It allows, unlike with erbium lasers, for an instant hemostasis during high speed ablation/cutting. It affords the clinician improved visibility of the surgical field and therefore allows for more precise and accurate tissue removal;
- Highly controllable depth of incision with dynamic range from micrometers to millimeters. It is proportional to laser power and inversely proportional to laser beam spot size and the surgeon's hand speed;
- Laser beam focal spot diameter determines the quality of the laser cut. For cutting, the LightScalpel SuperPulse laser handpiece is maintained 1-3 mm away from the tissue.
- Minimal post-operative swelling and edema due to the intraoperative closure of lymphatic vessels on the margins of the laser incision;
- Reduced post-operative pain and discomfort.
- Significantly reduced post-surgery production of myofibroblasts, diminished wound contraction and scarring. As observed in our surgeries, healing with the laser is markedly different from the other surgical modalities; it is uncomplicated and predictable.

In order to rebuild the necessary orofacial function in children and adult patients, an extensive Tongue-Tie FUNCTIONAL RELEASE includes the mandatory pre- and post frenectomy myofunctional therapy and the SuperPulse Laser frenectomy, preferably under topical anesthesia and combined with Tongue Movement Assessment for Ideal Release to achieve optimal function.

Living with Haemophilia

Haemophilia is a condition that impacts individuals and families, shaping their daily routines and choices. Understanding its nature, causes, symptoms, and management strategies is crucial for those affected by it. Here's a comprehensive guide to living well with haemophilia.





Understanding Haemophilia

Haemophilia is a lifelong inherited bleeding disorder characterized by the deficiency of clotting factor proteins necessary for blood clotting. There are two primary types: Haemophilia A, caused by factor VIII deficiency, and Haemophilia B (also known as Christmas Disease), caused by factor IX deficiency. The severity of the condition varies, ranging from mild to severe, depending on the amount of clotting factor present in the blood.

Causes and Inheritance

Haemophilia is caused by genetic mutations affecting the genes responsible for producing clotting factor proteins. These genes are located on the X chromosome, leading to different inheritance patterns. For carriers of the gene mutation, there's a 50% chance of passing it on to their offspring, influencing the likelihood of haemophilia in subsequent generations.

Signs and Symptoms

The main symptoms of haemophilia include bruising, blood in the urine, and prolonged bleeding. In severe cases, internal bleeding into joints and muscles can occur, leading to long-term complications such as target joints and permanent damage.

Management Strategies

In addition to medical treatment, individuals with haemophilia can adopt management strategies to cope with the condition effectively. The PRICER principles—Protection, Rest, Ice, Compression, Elevation, and Rehabilitation—guide the management of bleeding episodes. Physiotherapy plays a crucial role in preventing and recovering from bleeds, improving joint health, and maintaining overall well-being.

Living Well with Haemophilia

Parents and caregivers play a vital role in recognizing signs of bleeding and seeking appropriate medical advice. With proper management and support, haemophilia shouldn't hinder a child's education or participation in activities. Schools should be informed about the condition to ensure a safe and inclusive environment for students with haemophilia.

Sports and Exercise

Engaging in physical activity is beneficial for individuals with haemophilia, promoting muscle strength, balance, and joint health. While choosing suitable activities, consultation with haemophilia physiotherapists is recommended to minimize the risk of bleeding and maximize the benefits of exercise.

Conclusion

Living with haemophilia requires understanding, proactive management, and support from healthcare professionals, caregivers, and the community. With advancements in treatment and comprehensive care strategies, individuals with haemophilia can lead fulfilling lives, pursuing education, careers, and activities with confidence and resilience.

By raising awareness and fostering understanding, we can create a supportive environment where those with haemophilia can thrive and contribute to society. Together, let's empower individuals and families affected by haemophilia to live life to the fullest.

RHINOPLASTY

UNDERSTANDING BY AN ENT SURGEON FOR BETTER OUTCOME OF THE PROCEDURE

Dr. CHIDANAND DEVASAMUDRA
MS ENT, FELLOW IN RHINOPLASTY (SEOUL).
MANAGING DIRECTOR, AKSHAYA RHINODENT HOSPITAL,
SAHAKARANAGAR, BANGALORE.

The Rhinoplasty is one the common nose surgery done in routine practice. Often, Rhinoplasty is considered as a public performance. The stage is life after surgery. Some says, it is a great theatre—quite often a poem. The face is the most fascinating thing and it has to be handled with great care. The question of whether aesthetic surgery can make people happy or not is controversial and disputed. Each individual has their own definition of happiness. Most candidates of Rhinoplasty come to us because they hope to be happier by becoming more attractive. The hope of becoming both happier and more attractive is in fact justified, because patients tend to be more self-confident and content following a successful operation. In this sense, a positive result of a Rhinoplasty can make people happy.

In our practice, we found that in more than 70% of his cases, the presence of septal deviation/nose block coexisted with a deformity of the external nose. We performed a concomitant septoplasty in 80% of our primary and secondary rhinoplasties.

The human nose has various functions. It is a respiratory, sensory organ and has a special aesthetic importance as a central feature of the face. The functional and aesthetic aspects of the nose are inseparably linked in a morphological sense. It is our experience that functional and aesthetic problems of the nose almost always coincide.

But the concept of functionality does not apply just to the improvement of nasal breathing. It includes the following aspects as well:

- Peripheral olfactory disturbances.
- Recurrent and chronic sinusitis
- Lung infections, asthma
- Middle ear ventilation problems.
- Rhino genic headache.
- Poor vocal quality.
- Nasal ventilation problems due to snoring.

It is my firm belief that the ideal outcome in Rhinoplasty can only be achieved with a twofold goal: preserving the physiological functions of the nose and maintaining the appearance of a natural, individual non-operated nose. To achieve both goals, septal deviation correction, FESS (functional endoscopic sinus surgery), turbinoplasty (conchoplasty), and adenoidectomy are required in the repertoire of a well-trained Rhinoplasty surgeon.

CASE SELECTION IS THE KEY

The Success of the surgical procedure will begin with case selection. If the patient is clear about his/her nose problems and clear-cut requirements of the surgical procedure, we can decide whether patient is a good candidate for Rhinoplasty or not. If the expectations of the patient are realistic (for example, crooked nose/saddle nose or nose block correction), will be happy with the post-operative results. If the patient is having minor, imaginary defects or motivated by others or copying a celebrity, then he/she is not a good candidate for Rhinoplasty. An experienced Nose surgeon will assess the psychological status of the patient and whether patient requirements are realistic or un-realistic.

LEARNING CURVE OF A SURGEON.

Before putting knife on the nose, learning surgeon needs positive confidence and guidance from the senior surgeons. Rhinoplasty is a complex 3-dimensional surgery. To master the skills of the Rhinoplasty procedure, gold standard will be a well-structured training program under an experienced Rhinoplasty surgeon. To begin with, learning surgeon must understand the concepts of septoplasty, FESS and other procedures related lateral wall of the nose. After post-graduation (any degree MS ENT, MCH PLASTIC SURGERY, MDS OMF SURGERY), surgeon must attend cadaver dissections, hands on surgical training programs and read monograph books on Rhinoplasty.

OFFICE OF A RHINOPLASTY SURGEON.

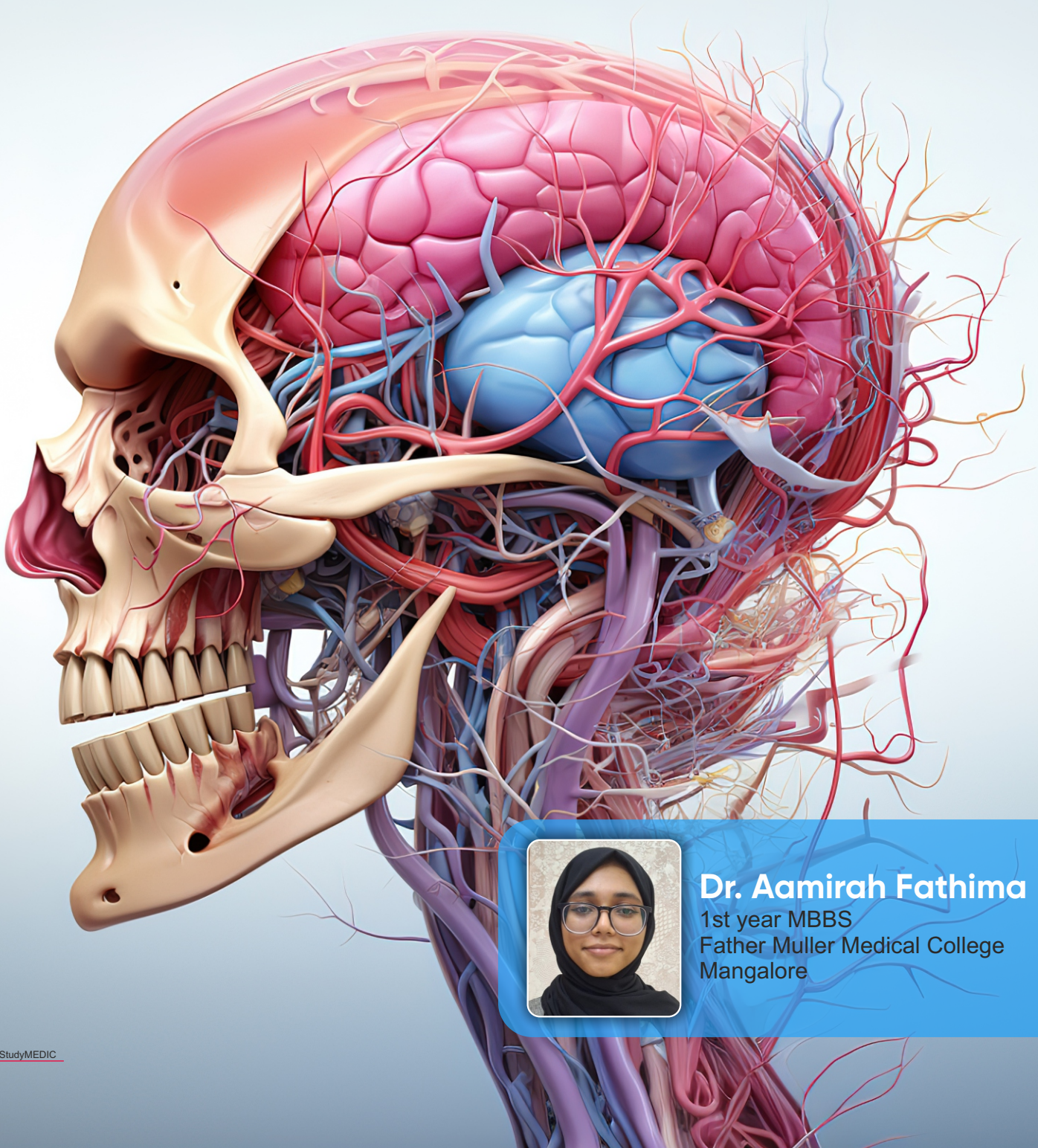
Nose is jewellery on the face. Office of a Rhinoplasty surgeon must look like a beautiful jewellery shop. Ambience and interiors should be attractive to the patient. Surgeon and staff in the hospital must be tidy and good looking.
For pre-operative consultation, printed questionnaire and checklists will help to get information from the patient. Standardized Rhinoplasty photographs are essential for pre and post-operative documentation. If the patient is good case for Rhinoplasty, we will share the copies of FAQ & As (frequently asked questions and answers) and precautions to be followed by the patient/ patient attenders.

TAKE HOME MESSAGE.

Rhinoplasty is not an emergency or a lifesaving procedure. It is an elective procedure. Before selecting the surgeon, patient is advised to understand concepts about the functions of the nose along with the external appearance. Pre-operative preparation is the key to avoid dissatisfaction/complications and revision Rhinoplasty surgeries. surgeons always assess the psychological status of the patient, patient's realistic expectations from the procedure, standardized photographic documentation, CT scan of the Nose Para nasal sinus and thorough pre-operative anaesthetic check-up.

ANATOMY

a breeze or a challenge for undergraduates?



Dr. Aamirah Fathima
1st year MBBS
Father Muller Medical College
Mangalore

When I first joined MBBS the subject I was most excited to learn was anatomy and it didn't disappoint me. Many had said that anatomy would be difficult, but thinking about learning the structures within our body fascinated me. While it is a vast subject it was enjoyable for me so it didn't feel like a task for me to study it. Unlike biochemistry and physiology, the things learnt in anatomy can be easily applied on the cadaver during the dissection hours. This makes anatomy an easier subject to learn. However, I think I have to be grateful to my teachers for making the subject easy with their comprehensible teaching skills.

I've said a lot about how easy and fun anatomy is for me, but there is one part which I find difficult: embryology. While the story of how we all grow from a zygote to fetus is captivating it's not easy to understand by just one or two readings. There are other subjects and topics which are more important from an exam point of view, so I usually leave embryology incomplete.

Another thing I like about anatomy is the histology classes. Compared to the other lab subjects, histology is quite easygoing. I don't need to do much pre-reading and I get to look into the microscope and identify organ sections. We also draw what we see on the microscope in our record books which feels like a relaxing art class.

To conclude, I love learning about the structures, organs and their placement within the human body. This makes anatomy one of my favourite subjects.

Another thing I like about anatomy is the histology classes. Compared to the other lab subjects, histology is quite easygoing. I don't need to do much pre-reading and I get to look into the microscope and identify organ sections. We also draw what we see on the microscope in our record books which feels like a relaxing art class.

To conclude, I love learning about the structures, organs and their placement within the human body. This makes anatomy one of my favourite subjects.

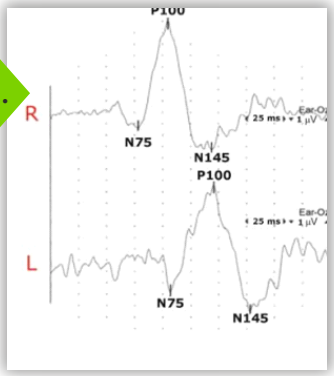
Medi Quiz

A thrilling exploration of diverse Medical wonders!

Dr. Venkatesh P
MS (Ophthalmology)

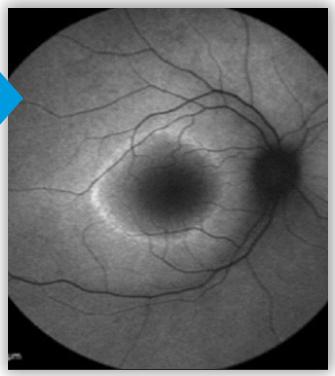
1. Which condition causes this pattern

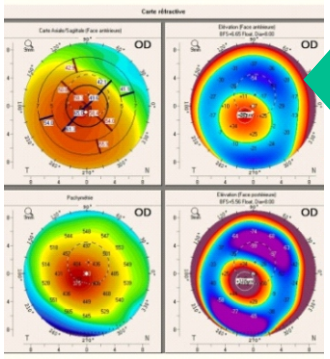
a) Optic atrophy
b) Vitritis
c) Corneal opacity
d) Stargardt disease



2. Diagnosis

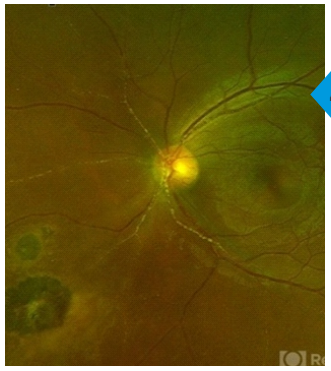
a) Central serous retinopathy
b) Retinitis pigmentosa
c) Bulls eye maculopathy
d) Best disease





3. What is your diagnosis

a) Keratoconus
b) Pellucid marginal degeneration
c) Keratoglobus
d) Post Lasik ectascia

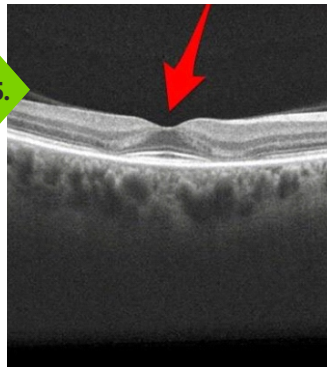


4. Identify the condition

a) CRAO
b) Lipemia retinalis
c) Kyrieleis arteritis
d) CRVO

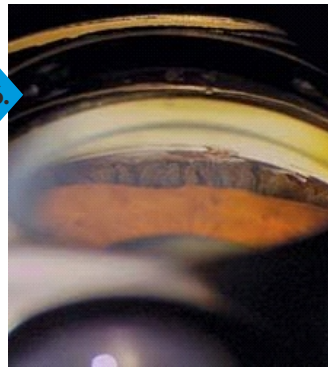
5. This sign is seen in which condition

a) Best disease
b) HCQ toxicity
c) Ethambutol toxicity
d) Ocular albinism



6. Diagnosis

a) Pigment dispersion
b) Neovascular glaucoma
c) Pseudoexfoliation
d) Angle recession



Ans : 1. (a) Image showing Visual evoked potential report of a patient with unilateral optic nerve pathology. Right eye shows normal P100 latency but left eye with delayed P100 component. Delayed P100 component is caused by disease affecting the optic nerve, particularly demyelination, compression, and other optic neuropathies.

Ans : 2. (b) Fundus autofluorescence image of a patient with retinitis pigmentosa showing Double ring sign demonstrating an abnormal perimacular ring of hyper-AF and diffuse, patchy hypo-AF in the mid-periphery.

Ans : 3. (a) Pentacam topography with Quadmap showing increased corneal curvature with Kmax > 47D and corresponding thinnest location in the pachymetry map showing thickness <470um which is suggestive of Keratoconus.

Ans : 4. (c) Kyrieleis arteritis is most frequently seen in ocular toxoplasmosis. It is characterized by the presence of focal, segmental plaques or exudates within retinal arteries.

Ans : 5. (b) Oct image showing attenuation of the ellipsoid zone and interdigitation zone in a perifoveal pattern, with early "flying saucer" sign with relative preservation of the central photoreceptors. Seen in case with Hydroxychloroquine toxicity.

Ans : 6. (d) Gonioscopy image showing angle recession which is widening of the ciliary body band due to tear between the longitudinal and circular muscles of the ciliary body. Most commonly seen in cases of blunt trauma.

Delivering Medical Education Beyond Boundaries

Reach us on

StudyMEDIC/youtube | StudyMEDIC/instagram | StudyMEDIC/facebook

WWW.STUDYMEDIC.COM

+44 7341 981 539
+974 7108 81 81

Contact Us
info@studymedic.com
www.studymedic.com
Scan Me

OUR NATIONAL & INTERNATIONAL COURSES

MRCOG	EFOG-EBCOG	MRCPI	FCPS	MRCS	FRCS
FRCR		MRCP		MRCPCH	
NEET PG	MRCEM	PLAB	NEET SS	IBCLC	USMLE
ULTRASOUND		IMM/MCPS		OET	
VAGINAL SURGERY	MS/MD/DNB	FMGE	HIGH-RISKS IN OBSTETRICS (HRO)	REPRODUCTIVE MEDICINE	MBBS

2 YEAR CLINICAL & NON CLINICAL PROGRAMS AVAILABLE