# PSG PSG Medi Pulse

## News Medical Surgical General

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#### Message

#### குறள் :

மிகினும் குறையினும் நோய்செய்யும் நூலோர் வளிமுதலா எண்ணிய மூன்று.

#### சாலமன் பாப்பையா :

மருத்துவ நூலோர் சொல்லும் வாதம், பித்தம், சிலேட்டுமம் என்னும் மூன்றாம் ஒருவனின் உணவாலும், செயலாலும் அவற்றுக்கு ஒத்து இல்லாது. மிகுந்தோ, குறைந்தோ இருந்தால் நோய் உண்டாகும்.

## **Maxillofacial Surgery**

#### **Emerge to Incredible Possibilities:** Inception of Maxillofacial Surgery Department at PSG Super Speciality Hospitals

I would like to bring to your attention & make you aware, with utmost humility but a special & respectful enthusiasm, the initiation & beginnings of the new multi-discipline Department of Maxillofacial Surgery at PSG Super Speciality Hospitals (SSH). I would like to express my heartfelt gratitude for the incredible support of the leadership, staff & management at PSG hospitals and for being a beacon of positivity & purpose in the inception of the Department of Maxillofacial Surgery.

Punctuating the last two years, the battle against the deadly pandemic Covid-19, the biggest global health challenge faced in this century, unfolded newer often dangerous complications which have kept the energies of medical fraternity focused on constantly upgrading, updating, innovating & unearthing new skills & applying medical-clinical talents to successfully combat the complications. One such major complication is the Mucormycosis infection - the problem which has mushroomed post-covid recovery. Mucor in a viral landscape – An endemic within a pandemic, leaving us dealing with a tale of two pathogens that we are now battling against.

The need for maxillofacial surgeons in treating the postcovid mucormycosis led to the initiation of the Department of Maxillofacial Surgery at PSG SSH. In the most recent year we, as a team, effectively treated more than 100 patients afflicted with Post-Covid Mucormycosis. The treatment of Mucormycosis is a collaboration of efforts of General Medicine (Infectious diseases), ENT, Ophthalmology, Neurosurgery, Anesthesiology, Radiology, General Pathology, Maxillofacial Surgery, Dentistry (Prosthodontics), Nursing & paramedical. The speciality of Oral and Maxillofacial Surgery (OMFS) is the art and science that merges the skill and acumen acquired in dentistry with the knowledge and confidence of Medical & Surgical speciality by treating minor surgical to major inpatient surgical treatments affecting the mouth, jaws, face & neck. The practice of oral surgery has metamorphosed from exodontia in the past years to performing complex facial surgeries in the present. The distance from Oral surgery to Oral & Maxillofacial Surgery has been made possible by the industrious efforts of professionals from around the world, who have constantly improvised in research & treatment strategies. The speciality is constantly growing & finding new vistas to establish itself & the exploration into hospital based practice is one of them.

The speciality of Maxillofacial Surgery has gone through a sea of change in the past two decades. There has been creation of sub-specialities within the speciality.

#### <u>The Principle sub-specialties of Oral and Maxillofacial</u> <u>Surgery : (Surgical pictures from my gallery)</u>

 Facial injuries & trauma (due to Road traffic accidents, assault & domestic violence etc) -management of soft & hard tissue injury of craniofacial structures.



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## **Maxillofacial Surgery**















**Zygomatic Complex Fracture** 







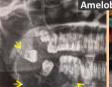
Inter maxillary fixation

2. Cysts and tumours of the jaws (Eg. Dentigerous cyst, Odontogenic Keratocyst, Odontoma, Ameloblastoma, Adenomatoid odontogenic tumor & many more..)



























3. Facial cosmetic surgeries (Orthognathic surgeries, Rhinoplasty, Genioplasty - Chin augmentation, Blepharoplasty, Ear lobe correction etc) - surgeries to enhance facial aesthetics, and improve quality of life.



**Bilateral Sagittal split Osteostomy with Genioplasty** 





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## **Maxillofacial Surgery**



Upper Eyelid Blepharoplasty - for Youthful Eyes



4. Orofacial infections (Odontogenic & Non-odontogenic)



Mucormycosis : Few pictures from the vast no. of patients operated by me at PSG Hospitals (Maxillectomy)













Post Operative Healing after Mucor surgery





#### **Maxillofacial Surgery**

#### 5. Temporomandibular Joint surgeries (TMJ dislocation, TMJ ankylosis & TMJ reconstruction surgery)



6. Distraction osteogenesis for dentofacial deformities



7. Salivary gland diseases (Mucocele, Ranula, Sialolithiasis & tumors) - Management of benign and malignant lesions of the salivary glands



 Dental, zygomatic and Maxillofacial Implants to retain facial or dental prostheses and associated bone grafting techniques as part of oro-facial reconstruction.

Implant supported over denture in grafted free fibula bone



**9. Head and neck cancers** - access to tumours within the depths of the complex craniofacial anatomy, and ablation of tumours, including neck dissections and subsequent reconstruction, including microvascualar free tissue transfer.



Squamous Cell Carcinoma

#### **Maxillofacial Surgery**

Minor & Dento-alveolar surgeries (Pre-prosthetic – bone recontouring, Apicectomy, Impacted wisdom teeth surgeries, Sinus lift surgeries, Tongue tie release - frenectomy, tongue reduction surgery for macroglossia, neurectomy for trigeminal neuralgia, lip surgery - cheiloplasty)
Direct Sinus lift for implant placement



11. Surgery for Craniofacial Facial Deformities - the correction of congenital or acquired facial deformity primarily to improve oro-facial function, but also often to overcome facial disfigurement and restore quality of life. Cleft lip & Palate - Primary and secondary surgery for cleft lip and palate, and other congenital facial deformities.



Prof. Dr. R. Saravanan, MDS, PGDHM, MSc. Senior Consultant Dept. of Maxillofacial Surgery PSG Super Speciality Hospitals

With unique training in oral and maxillofacial surgery underpinned by medical and dental science, Faciomaxillary surgeons expanded into speciality areas and many now participate in craniofacial surgery and aesthetic facial surgery. OMFS is, in itself, an integral field that encompasses aspects of science, clinical techniques, esthetics - constantly & rapidly re-creating & advancing itself.

Over the past two decades, the field of Maxillofacial Surgery has grown significantly, and every breakthrough in the history of our field has taken, occurred due to the ingenious step to invent a new technique, and also because of the many practitioners who later learned about the technique, saw its significance, then popularized and perfected it.

With the rapid development of science and technology, oral and maxillofacial reconstructive surgery has kept pace with time to bring a prosperous future. OMFS reconstructive surgery was focused on with major achievements made in the following aspects: transplantation of revascularized tissues, bone graft substitutes, platelet-rich plasma, tissue engineering, distraction osteogenesis, micro vascular surgery, laser surgery, computerassisted design.

Micro vascular tissue transfer was one of the most important stages in the reconstruction of the lower jaw and upper jaw after ablative tumor surgery. Modern methods using a vascularized composite fibula flap together with dental implants have led to successful rehabilitation in terms of speech, mastication and facial esthetics. The use of three-dimensional printing (3D) application technology in maxillofacial surgery include trauma surgery, pathology induced defects, complex temporomandibular joint reconstruction and correction of complicated facial asymmetry. There is an increasing use of 3D imaging applications for presurgical planning and transfer of oral implant treatment. Preoperative surgical simulations with 3D models, such as stereo lithographic models, are useful to evaluate treatment plans and to acquire precise representations of the underlying skeletal anatomy of the patient.

Due to the nature of the work, oral and maxillofacial surgeons often work alongside a variety of specialists in other fields such as ENT surgeons, Clinical oncologists, Plastic surgeons, Orthodontists, Restorative dentists, Radiologists and Neurosurgeons.

Over the years, we have witnessed simple modifications to procedural steps setting forth paradigm shifts in the field; we have also seen innovations in other disciplines being borrowed and adapted to aid our cause. The development of oral and maxillofacial surgical technique is still constantly evolving.

"No one can whistle a symphony. It takes a whole orchestra to play it". We have a cross-disciplinary team to diagnose and solve even the most difficult, complex problems that may face each individual patient. We consult and collaborate with many of the finest expert practitioners and across a wide range of fields to advance the wellness and well-being of those people whom we care for. With this announcement of a new & unique department, we respectfully encourage other professionals to collaborate with our team. Looking forward to work together with one & all.

# General

#### THE BALDNESS NIGHTMARE

Men or women of all ages have always dreamt of a head full of thick, lucious and attractive hair.

Hair loss and alopecia primarily affects individuals during their teens or early adulthood. This leads to lots of frustruation, depression, social isolation and an inferiority complex. This is very true for Androgenetic Alopecia, pattern baldness.

Apart from the lack of knowledge and understanding, why a person starts balding, the peer pressure, unnecessary advise from others and the unwanted and unendorsed false information flooding the internet and media, makes things complicated.

The first and foremost step taken by our Department is proper patient counselling. We explain and educate the patients that it is a genetical and physiological process to go bald and it is not any disease or deformity. The role of androgens and DHT is stressed and the patient is made to accept the reality.

Since there is no cureness for baldness, we also state that the treatment depends upon the stage and type of baldness. The patient is made to understand that since hormone dependant baldness is a continuous process, the treatment is also a continuous and protracted one.

The treatment of Alopecia can be divided into two. First, the prevention of further miniaturisation of existing hair follicles and second, reversing the effects of DHT on the scalp hair.

For prevention of further hair loss, drugs like Minoxidil (topical), Finasteride (topical or oral) are primarily advised, along with vitamins, micro nutrients, iron supplements along with a high protein and nutrient rich diet. Since stress is an added and important secondary factor, meditation, Yoga, asanaas and life style modification is highly recommended. Resistant cases are treated with Bumitaprost, plant peptides etc. The improvement and stop of further hair loss is periodically assessed by Macro photography, trichoscopy and self evaluation. These treatments are to be continued indefinitely depending upon the patients age and expectation.

For re-growing the miniaturised hairs and restoring hair density Platelet rich plasma therapy to the scalp is initiated. Usually it is done once in 3 weeks and continued till optimum results are obtained.

Platelet rich plasma helps by providing the necessary growth factors from the alpha granules of the platelets, segregated from the patients own blood. Some patients are hyper responders and start early signs of reversal and hair growth. Usually most patients require 6 sittings to see a 50 to 60 % improvement response.

## General

Patients who have lost their frontal hair-line or forelock and have Norwoods stage III and above will need a hair transplantation to regain their crowning glory. The commonly done technique today is Follicular Unit Extraction, also called FUE, where hairs growing in the back of the head called the permanent zone are extracted with their roots as 1 0r 2 units using a micro punch and a high speed mini motor under local anaesthesia. We use micro punches in our Department. This is called micro FUE. A pre - transplant PRP injection of the recipient site is done just before hair transplant. This is called PRP primed / enriched FUE . Micro FUE produces extremely tiny scars and hence is aesthetically very pleasing , even when the patient goes for close hair cut in the donor area later .

The harvested hair grafts are placed in an appropriate nourishing medium in a cold chain to avoid dessication and 'Graft Shock'.

The donor hairs are implanted in the bald areas after proper designing of the hair line is done.

We use implanter pens for implanting the grafts closely and in correct direction and angle. This is called Direct Hair Implantation. This is done to avoid excessive handling of the delicate follicles.

Once the follicles are implanted they grow for a period of about 2 weeks and then start shedding.

New hair shafts start growing after 6 months and reach their full thickness and density by 1 to 1 and a 1/2 years.

Till then PRP and medicines are continued and have to be continued indefinitely to maintain the hair density in the crown area.

For advanced baldness grades, body hair transplantation along with frontal hair line reconstruction using the minimal scalp hair is done. Beard and body hair grafting usually gives inferior results when compared with scalp hair grafts.

The passion to grow hair and fight baldness has become an intense and raging topic among the youth today. A proper understanding of the patho-physiology of hair loss and the early awareness of familial baldness will definitely help us to save the crown hair of future generations.