



THE PURSUIT OF PERFECTION IN TISSUE RECONSTRUCTION

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With the discovery of Antibiotics the number of casualties in the World war II were reduced, nevertheless, more people lived with disabilities and defects. Demand for addressing these issues gave birth to a new field called 'Plastic surgery'. Then plastic surgeons tried various methods and innovations to solve these issues. Although, in the beginning it was an experimental, now every procedure in Plastic and Reconstructive operations are highly technical and skillfully demanding endeavours.

As human tissue does not restore itself following loss, it remains very important to replace the lost tissue to protect, heal and bring back near normal function. Thus, Plastic surgery is procedure done for restoring the form and function of the defects and deformities that happen due to trauma or injuries. There are plenty of ways to do it.

Armamentarium

We are very well equipped with options to meet the requirement, as and when. Starting from the simple Skin grafting to flap surgeries. Even the flap surgeries, which means moving a tissue from one place to another with its blood flow intact, has undergone many revolution. Free flap, which lies at the pinnacle of the tissue reconstruction, is an example of marriage between technology and conventional anatomical knowledge.

Free Flap

A Free Flap is indeed a composite tissue that is detached with its own supplying blood vessels, freed from the native place and made to connect to a blood vessels near the new region where the tissue is needed to cover the defect. It entirely depends on the new relationship for its survival. It could be made of only skin and fat or muscle or bone or all of it. By doing so we can, not only tailor our needs but also we can have exponential choices of flaps to harvest. None the less, all is not well.

The vessels are of diameter are at the best 4mm and in many instances it is less than that. Thus, joining the free flap at the recipient site

needs skills and equipments, both of which are the bottle neck for these surgeries. An operating microscope is an inevitable part of free flaps with magnification upto 40 times. Speaking about skills, as in any surgeries it needs to be disciplined and acquired with effort and positivity.

Every flap failed, which means failure to sustain the blood flow into the flap from the new site, is night mare to surgeon. Need for another surgery means a big burden for the patient both psychologically and economically. None the less, only less than 4% incidence of flap failure world wide.

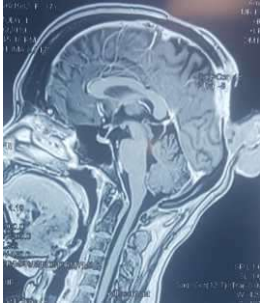


Case report

A young lady came to us with repeated growth of ulcerated mass on her scalp. She was operated many time at different hospitals for the same. At present as the tumour was extending upto the dura (inner brain layer) and the mere size of the mass ranging upto 20x18 cms many centres were not ready to take up.

After complete evaluation we planned to go a head with the excision and reconstruction. The tumour was excised by Neuro surgeon and Onco surgeon working as a team. The dura was closed and it didn't need any reconstruction. The defect was 22x19cms with scalp and cranium (10x8 cm). With such a large defect we choose the largest muscle in the body, the latissimus dorsi.

The muscle was harvested with patient in lateral position and with a long incision over the muscle. The pedicle was isolated and clamped at the highest point to get the maximum length of the



pedicle and possibly a better diameter (2mm) vessels to work with. Recipient vessels were looked on superficial temporal artery. As there was difficulty to get a proper sized vein we had take vein graft from the post auricular region and use it.

Sutures used for vessles anatomosis were ethilon 9.0. with Carl zeiss ultra high end operating microscope (Kinevo900).

To cover the bare muscle, skin was harvested from the thigh and fixed on the muscle. Post operatively patient was taken care with antibiotics and we used blood thinners as the duration of the anastomosis were long. Patient recovered very well and due for radio therapy.

To sum up.

Most patients coming to a tertiary care centre are in delayed stage , presenting in complex and complicated situation. A team of various specialties bring together different skills and knowledge those are mandatory to address such conditions. Technology with advanced equipments makes the present surgeon to advance further in the patient care. We can achieve what our predecessors would be proud about. Thanks to Sir Harold Gillies , the Father of Modern plastic surgery, for starting it all in 1910.



DEPARTMENT OF PLASTIC AND COSMETIC SURGERY

Some of the Commonly Done Procedures are

LIPOSUCTION	Removal of fat through small holes with help of a machine
GYNAECOMASTIA	Male breast reduction through lipo suction. Minimal scar compared to old methods
ABDOMINOPLASTY	Tummy tuck - correction the larger abdomen for both men and women (Post pregnancy)
RHINOPLASTY	Nose reshaping
BREAST SURGERIES	For reducing and improving the size of the breast though implants and other methods
OTOPLASTY	Bat Ear (Prominent) correction.
BLEPHAROPLASY	Sagging eyelids of old age correction,
SCAR REVISION	Ugly and prominent scar removal.
FAT TRANSFER	Latest treatment in improving scars and shape abnormalities. Involves using one's own fat to improve the appearances.
BODY CONTOURING	These are procedures in which loose skin and fat are removed and remaining skin is tightened to give a more toned and youthful appearance.

