

Current Status of Orbital Implants in Pakistan

Anophthalmic socket reconstruction should start at the time of primary surgery. An orbital implant is regarded as the first step for making platform for an ocular prosthesis. Not long ago quite a few ophthalmologists in Pakistan believed that no implantation should be done at the end of evisceration for endophthalmitis thinking that infection may persist. However, now mostly an appropriate sized acrylic ball is implanted after evisceration and a conformer is inserted. Evisceration and acrylic ball implantation is also used by some surgeons in the cases of painful blind eye.

Similarly after enucleation for ocular malignancy no implantation was done with a false belief that recurrence of tumour may be masked. On the contrary it is now believed that an implant makes detection of recurrence much easier. However, previously available implants had several problems. Allen implant has truncated front surface with sharp edges. Hence, it not only gives poor volume replacement but there is also an increased risk of wound dehiscence and implant exposure.

Some surgeons have used acrylic ball wrapped in various donor materials. Each material has problems of its own. Sclera is scarcely available in Pakistan and there is associated risk of microbial transmission. Other autogenous materials like fascia lata, temporalis fascia and pericranium have been tried for wrapping the implants. There are several reports of exposure and infection with Merselene mesh. All these materials have the associated problem of extended surgical time and risk of disease transmission. As some of these patients undergo postoperative chemo or radiotherapy, there is an added risk of delayed wound healing in donor area.

A relatively recent addition to the implants is a family of bio-integrable implants. These implants have minute pores that invite fibro-vascular in growth, hence it becomes part of body or bio-integrates. These implants have advantage of possibility of a peg insertion which allows the prosthesis to be directly connected to the bio-integrated implant and hence improved motility. The implants of this category include hydroxyapatite, Medpor, Biopore and Biceramic. Hydroxyapatite is made up of a naturally

occurring coral. It has the associated difficulties of wrapping material. There is also a green lobby against damage to the natural life. Other problems associated with these implants are recurrent infection, exposure and cost. An average bio-integrable implant costs approximately US\$1000 in Pakistan. Once the cost of services is added, it becomes out of reach for most of the patients not only in Pakistan, but also in other developing countries. The pegging can also be associated with recurrent granuloma formation and dislocation; hence only 10% of these implants get pegged anyway. Moreover, some authorities are quite skeptical about the claims of improved motility with the peg. Secondary orbital implantation is encountered with even more problems, like exposure, migration and infection.

With the onset of implant manufacturing in Pakistan the cost has become bearable. Moreover; indigenously developed implants like Sahaf and OFI (Omnifit Orbital Implant) implants have tried to address quite a few of the problems for Pakistani patients. Locally manufactured implants are readily available at a fraction of the cost of porous implants which are available after 6 weeks of placement of the order. Some of the locally available implants incorporate a magnet, which can be later coupled with a piece of metal in prosthesis to increase motility.

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