

INTRODUCTION

The term strabismus is derived from the Greek word strabismos, “to squint, to look obliquely or askance.” Strabismus means ocular misalignment, whether caused by abnormalities in binocular vision or by anomalies of neuromuscular control of ocular motility. Strabismus (heterotropia) is A manifest deviation in which fusional control is not present. **(John et al 2009)**. Although most cases of strabismus manifest the trait in infancy or early childhood, many other cases start to develop strabismus as a postoperative complication after different types of eye surgeries , its incidence is variable according to many factors like method of administration of anesthesia and type of surgery either intraocular or extraocular.**(Guyton , 2001)**.

Myotoxicity from inadvertent intramuscular injection of the local anesthetic has become recognized as an infrequent but potent cause of strabismus following retrobulbar or peribulbar anesthesia **(Guyton, 2001)**. Persistent diplopia occurring after cataract surgery can be caused by one or more of the following: Pre-existing unnoticed disorder, sensory deprivation caused by cataract, surgical or anesthetic trauma and optical causes **(Chung et al, 2009)**. Motility disturbances following retinal detachment surgery can occur frequently in the immediate postoperative course. Most diplopia is transient and resolves spontaneously within a few weeks. The prevalence has been estimated to be between 50–75% of cases of retinal detachment in the

postoperative period but only approximately 1–5% six months later (**Rosenbaum , 2001**) . The prevalence of strabismus after glaucoma implant surgery is not well known but it is believed that, there is no glaucoma implant or surgical technique completely free from the risk of postoperative strabismus. (**Freedman , 2001**).

Under- or over-correction are probably the most common complications noted following strabismus surgery, which occurred usually due to inaccurate preoperative measurement of angle of deviation, or measurement errors of recession or resection during surgery. (**Garg et al, 2007**). In Orbital decompression Strabismus may result from entrapment of orbital contents, including extraocular muscles, in the decompression site. (**Avilla and Mazow; 2001**). Refractive surgery does not cause ocular misalignment; rather, it only allows the manifestation of the ocular misalignment that was previously present. Strabismus and binocular diplopia secondary to refractive eye surgery are rarely reported in the eye literature (**Alio and Azar, 2008**). Strabismus and diplopia are rare but serious complications that reported following pterygium excision surgery (**Jenkins et al, 2002**). Ocular motility disturbances have been described following blepharoplasty (**Wilhelmi et al, 2001**). Uncommon complication of ptosis surgery is paresis of superior oblique or in some cases superior rectus muscle (**McCord Jr, 1995**). Diplopia after Jones tube insertion can result from conjunctival scarring (**Zilelioglu and Gunduz, 1996**).

AIM OF THE WORK

This study aims to identify the various causes of strabismus occurs after ocular surgeries and the different lines of management hoping to present a reliable and practical guide for ophthalmologists who encounter any of these cases.

CASE EVALUATION

Regarding an examination of a case of strabismus after an ophthalmic surgery we should be careful to take A good history of Childhood strabismus, glasses, prism or occlusion therapy, trauma or surgery and History of systemic diseases as thyroid dysfunction. We should ask our self four questions which eye is deviate ? , what is the direction of deviation? , is deviation is intermittent or constant? And what is the amount of deviation?

Clinical evaluation of the case depends on : clinical signs as versions & duction movements in diagnostic gaze positions , diplopia chart and hess screen. On the other hand forced duction test and CT or MRI are help to differentiate restrictive from paralytic causes.

Management of postoperative strabismus is proceeded in tow main lines. The first is prevention which is achieved through selection of the best hand surgeon to perform the surgery and Taking all precautions before doing the surgery. The second line is treatment, most postoperative diplopia resolves spontaneously within weeks or monthes. In the mean time, diplopia may be managed by temporary occlusion of one eye , the use of prismotherapy in cases less than 10 diopters deviations , or

injection of botulinum toxin in the antagonist muscle. Strabismus surgery may be required for those patients who have persistent limitation of eye movement and diplopia more than six months after ocular surgery.