Sling materials for management of congenital ptosis – A major review

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Abstract

Blepharoptosis affects individuals of all ages, races and genders. It has a significant impact on a patient's functional and psychological status and may cause poor visual development in childhood. Since the Italian anatomist and surgeon Antonio Scarpa's publication of Practical Observations on the Principle and Disease of the Eye in 1806, ptosis surgery has undergone many revolutions as the knowledge of anatomy and physiology progressed and as types of materials expanded. It is essential that a multidisciplinary approach, encompassing pediatric ophthalmology, oculplastics surgeon, and orthoptic department work closely to optimize patient management. Correction of congenital ptosis is one of the most difficult challenges ophthalmologists face. Ptosis surgical correction techniques depend on the degree of ptosis and the levator muscle action. Multiple surgical procedures are available including frontalis sling, levator advancement, Whitnall sling, frontalis muscle flap, and Mullerectomy. In cases with severe levator muscle dysfunction, the choice of surgery is a sling procedure. Materials which have been used for this purpose are widely variable and divided into non synthetic and synthetic. Non synthetic include fascia lata (both autogenous and allogenic), palmaris longus tendon and temporalis fascia, while synthetic include mersilene mesh, silicone rods and sutures (prolene, nylon, silk and Gortex). Al-Shifa Journal of Ophthalmology 2011; 7(2): 57-72 © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan.