COMPARSION BETWEEN BICANALICULAR LACRIMAL INTUBATION WITH RITLENG PROBE AND CANALICULAR CERCLAGE IN TREATMENT OF CANALICULAR LACERATIONS

Ihab Mohamed Osman, Ahmed Metwally Seddik, Asma Ibrahim Ibrahim Altwair
Department of Ophthalmology, Faculty of Medicine, Alexandria University

Introduction

Eyelid injury is a common ophthalmic emergency, requires organised treatment to ensure the best results and lower the likelihood of problems after surgery. The most frequent causes of eyelid injuries, which can be either sharp or dull, include dog bites, accidents, sports injuries, traffic, and other violent crimes. More frequently than the upper eyelids, the lower eyelids are affected.

Males experience lacrimal canalicular lacerations more frequently than females do, as well as more frequently in youth and young adults. Fighting with fists frequently results in blunt damage. Due to facial damage from falls, elderly individuals may be more prone to this kind of injury. Lacrimal canaliculi are vital structures that play an important role in tear drainage from the eye and are considered a significant part of the active pump system. Injuries to the medial eyelid and canthal region are more likely to result in canalicular lacerations. A canalicular injury may cause epiphora and cosmetic problems.

Aim of the work

This study aims to compare the two techniques of stent insertion for canalicular repair (canalicular cerclage and bicanalicular intubation using the Ritleng probe) in the treatment of traumatic canalicular laceration.

Patients and Methods

A prospective comparative interventional case series study is being conducted.

The study was carried out on patients who have canalicular lacerations and attend Alexandria University Hospital. Twenty eyes of twenty patients were enrolled in the study.

All canalicular lacerations that are associated with traumatic eyelid injuries, including upper, lower, or both are included in the study, and any patient who has had a previous attempt to repair the lacerated canaliculi or has had old, neglected eyelid injuries are excluded.

All patients or their legal guardians signed a written informed consent to participate in the study and for the publication of data before being enrolled in it (after explaining the nature of the procedure and all study details). Canalicular laceration was repaired in ten patients using bicanalicular lacrimal intubation (group 1) and ten patients using bicanalicular annular intubation (group 2). All patients included in this study were subjected to complete general and ophthalmic examinations.

Results

Table 1: Patients' Characteristics

Variables		Group I	Group II	X2 p-value
Age		14.0 ± 5.49	23.3 ± 16.72	U = 2.14 0.071 N.S.
sex	Male	8 (80%)	6 (60%)	0.952
	Female	2 (20%)	4 (40%)	0.329 N.S.
Site	Right	6 (60%)	5 (50%)	0.120
	left	4 (40%)	5 (50%)	0.925 N.S.
	lower	8 (80%)	8 (80%)	0.00
	upper	2 (20%)	2 (20%)	1.00 N.S.
Mechanism of injury	Blunt	6 (60%)	6 (60%)	0.00
	Sharp	4 (40%)	4 (40%)	1.00 N.S.

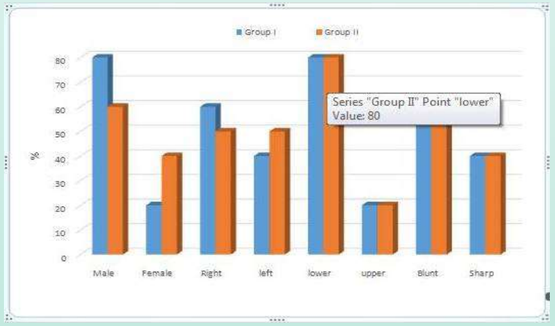

Figure1: Comparison between the two studied groups according to the age, sex, site and Mechanism of injury

Table 2: Post-Operative Results

Variables		Group I	Group II	X2 p-value
Premature tube extrusion	<2 months	2	1	0.29
PO epiphora		1	2	0.39
Anatomical success		100%	100%	1.00
Functional success		90%	80%	0.23

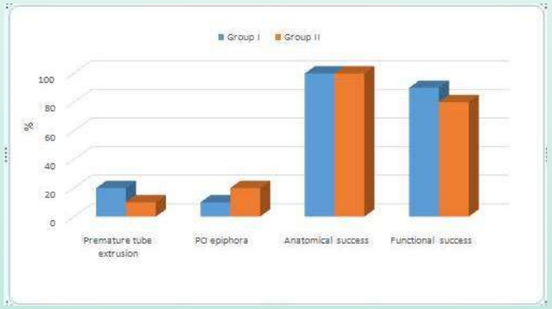

Figure 2: Comparison between the two studied groups according to the postoperative results and complications

Conclusion

Surgical repair of canalicular trauma yields extremely successful results. The use of modern microsurgical techniques by an experienced team with proper stent use during the healing process ensures a good outcome.

In this study, regarding anatomical and functional success, there was no statistically significant difference between bicanalicular annular intubation using a pigtail probe and bicanalicular lacrimal intubation with the Ritleng probe.