

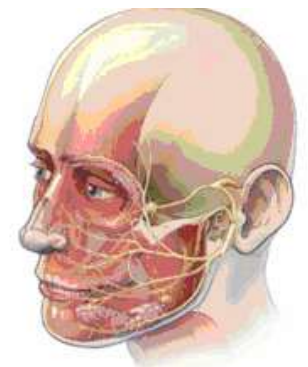
How can we protect the ocular surface in facial nerve palsy

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INTRODUCTION

- ▶ The facial nerve is a mixed nerve, consisting of motor, sensitive, sensory and autonomic (parasympathetic) fibers; the Wrisberg (VII') intermediate nerve is attached to, which is a sensitive nerve. It has the following functions: it provides taste sensitivity, mimic muscles innervation, sublingual and submaxillary salivary gland secretion, lacrimal gland secretion.(1)
- ▶ The complication of facial nerve palsy of various etiologies (Bell's palsy, vascular lesions, tumors, iatrogenic, trauma, infections, degenerative diseases) is **lagophthalmos**, defined as the inability to completely close the eyelids.



LAGOPHTHALMOS

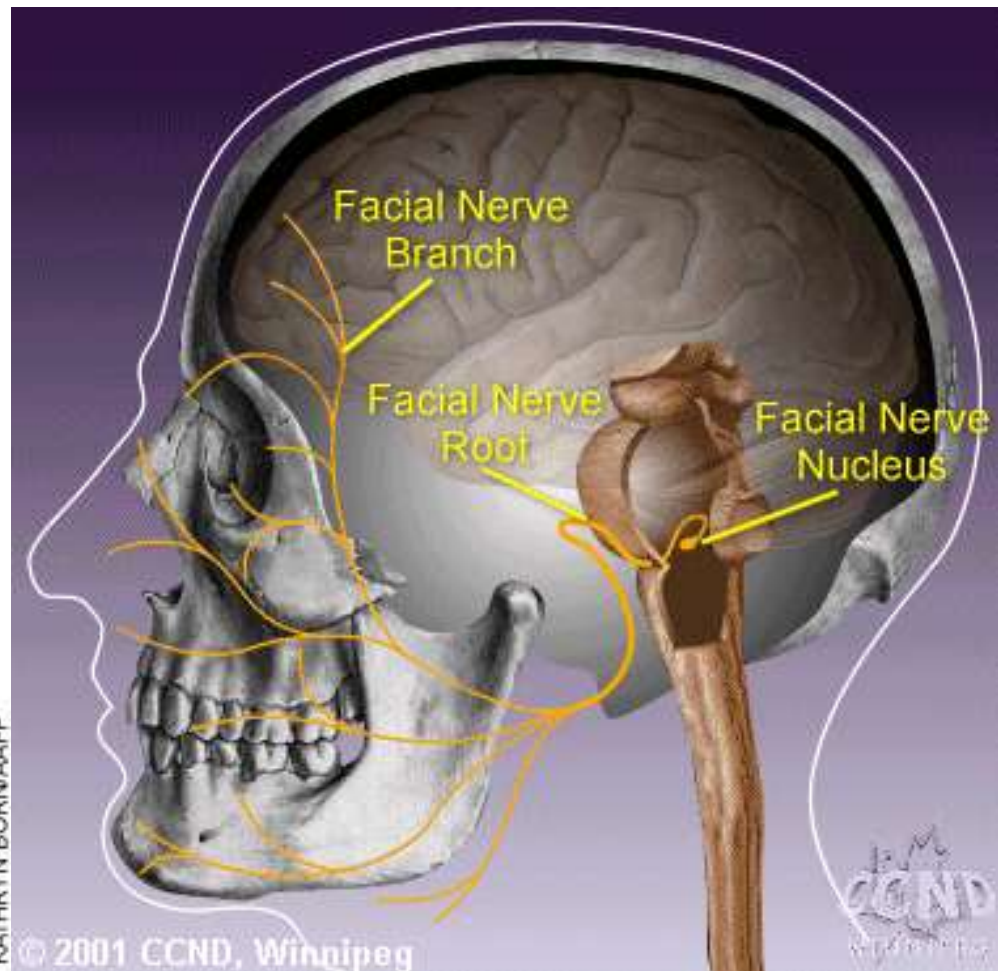
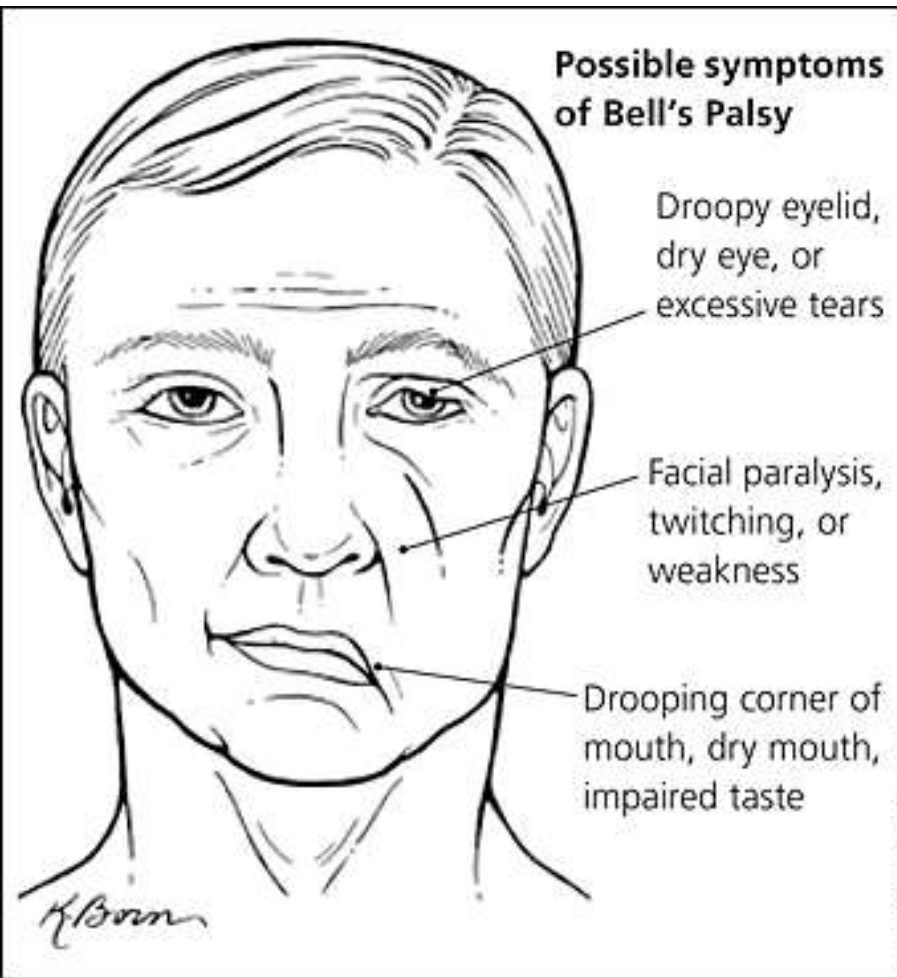
- ▶ The inability to close the eyelids may lead to corneal problems such as exposure keratopathy with epithelial defects, ulceration, stromal thinning, bacterial infection, perforation, leucoma.
 - ▶ The first choice in treating lagophthalmos is conservative and symptomatic (eye drops, ointments, taping and moisture chambers), but surgical intervention may be required for patients where medical therapy has failed or the facial palsy has no perspective of functional recovery.
 - ▶ The therapeutic contact lenses are inefficient, the patients lose frequently the CL.
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LAGOPHTHALMOS

▶ The weight implantation

- Is the most commonly used technique for rehabilitation of the eye in patients with facial nerve palsy
- It has been shown to effectively reduce lagophthalmos, protect the cornea and improve cosmetics.
- The presence of weights seems to contribute to the mimics and blinking of the eyelids which provides a better aesthetic appearance.


- ▶ The aim of the study is to reveal the options in the management of the exposure keratopathy.



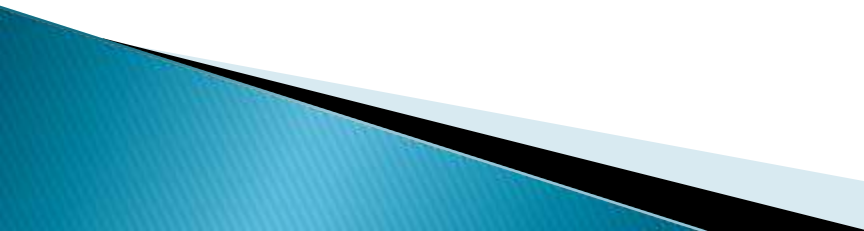
MATERIAL AND METHOD

- ▶ In our study there were 46 patients with facial nerve palsy:
 - medical treatment – 10,
 - surgery 36
 - canthoraphy (blefaroraphy) – 12
 - implant of a weight in or on the upper lid with or without Ectropion correction – 24

MATERIAL AND METHOD

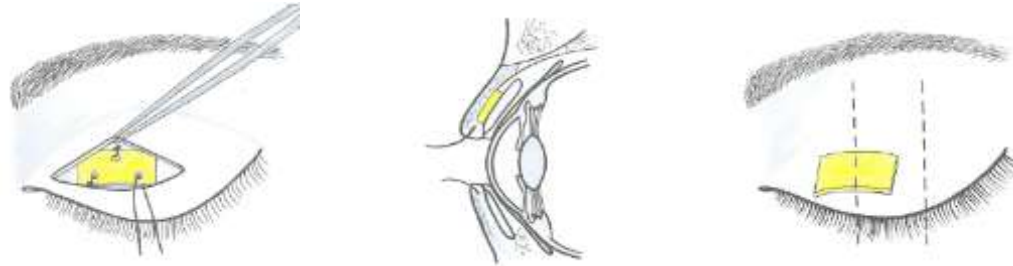
- ▶ Lid surgery options:
 - ▶ Static techniques – acting on the dimensions of the palpebral aperture (medial cantoplasty and incomplete lateral tarsoraphy, internal eyelid weights, external eyelid weights)
 - ▶ Dynamic techniques, trying to improve the mobility and palpebral closure. (corsage with silicone tape, orthodontic arch, transfer of tendon from temporal muscle)
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MATERIAL AND METHOD

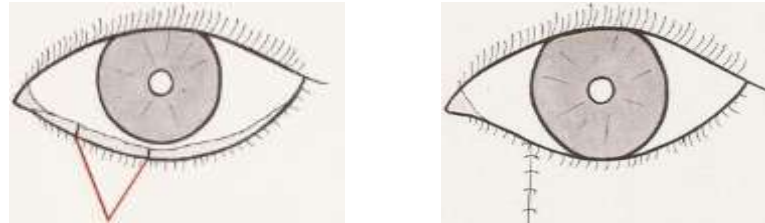
- ▶ If recovery was anticipated, the medical treatment involved frequent instillation of lubricants during the day and ointment at night, fitting of therapeutic contact lenses.
 - ▶ If permanent, lid surgery was usually required (5).
 - ▶ Our most cases were solved using weight implant in the upper lid with/without the correction of the ectropion.
 - ▶ A supplementary palpebral weight determines a good lid occlusion and corneal protection (3).
- 



Weight (gold)
implant




Positioning
the weight
implant in the
upper lid



Correction
of the
ectropion



- ▶ The weight implant in the upper lid +/- the correction of the ectropion in the management of the lagophthalmos in facial palsy the best choice in the management of exposure keratopathy.
 - ▶ Next, we present some suggestive cases solved using this method.
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Patient S.A., 72 years old - left facial nerve palsy
LE- lagophthalmos/ exposure kerathopathy



PREOP: when the eyes are closed, the cornea of the left eye remains partial exposed



LE: weight implant in the upper lid.
9 days POSTOP., the patient has a good lid occlusion, the cornea is clear, with complete epithelization and an aesthetic aspect.



Patient L.E., 47 years old - LE - corneal leukoma in the context of exposure kerathopathy, treated 7 years ago with an unefficient tarsoraphy (Acoustic Neurinoma).

PREOP: when the eyes are closed, the cornea of the left eye remains partial exposed



LE: weight implant in the upper lid.
Four months POSTOP, the patient has a normal lid occlusion.



Patient A.M., 58 years old - RE
- facial nerve palsy



PREOP.: RE - the upper lid fails to drop down and close, the lower lid loses tone and sags downward, leading to ectropion, exposure kerathopathy.



R upper lid + correction of the ectropion.
POSTOP., normal lid occlusion. E: weight implant in the





Patient C.N., 48 years old
- RE - facial nerve palsy



PREOP.: RE - lagophthalmos



RE: weight implant in the upper lid.
1 week POSTOP., the patient has a normal lid occlusion.





Patient G.V., 56 years old - LE - facial nerve palsy



PREOP.: LE - incomplete occlusion




RE: weight implant in the upper lid.
1 week POSTOP., normal lid occlusion.



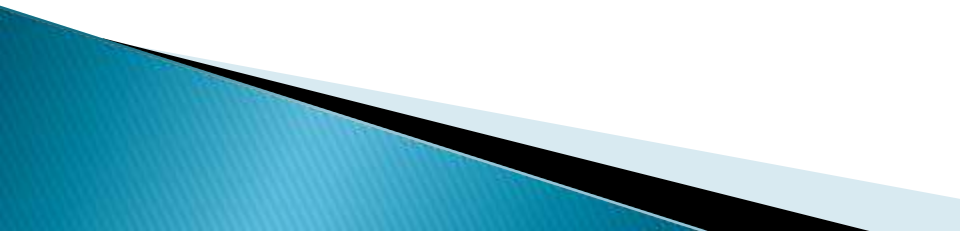
Patient B.N., 49 years old - LE - facial nerve palsy



LE: weight implant in the upper lid + ectropion correction.

- ▶ Concerning the surgical technique, for best results, it is very important to fixate the weight pretarsal in the upper lid, after the dissection of the palpebral muscles;
 - ▶ The weight can be made of gold or other materials (platinum);
 - ▶ The weight has to be very precisely calculated in order to obtain the optimal occlusion.
- 



- ▶ Surgical treatment is reserved in severe exposure kerathopathy without functional recover perspectives.
 - ▶ Tarsorrhaphy is unaesthetic and reduces peripheric visual field (especially in monophthalmos), sometimes ineficient, so we consider it shouldn` t be practiced anymore.
 - ▶ At all the patients with exposure kerathopathy of neuroparalytic etiology the functional and aesthetic results were excellent after gold weight implant in the upper lid associated or not with ectropion correction.
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▶ Thank you !

