



Surgical Treatment of Ptosis: Case Series

Aghiouss Sofia^{1*}, Souad Kerroumi¹, Abderrahime Oulahrour¹, Meryem Rbiaa², Houria Mouhajar³, Yousra Sabri¹, Ouardi Adil¹, Nassim Sabah Taoufik⁴

¹Department of Plastic and Reconstructive Surgery, Ibn Zohr University, Agadir, Morocco

²Department of Ophthalmology Surgery, Ibn Zohr University, Agadir, Morocco

³Department of Plastic and Reconstructive Surgery, Mohamed V University, Rabat, Morocco

⁴Department of Plastic and Reconstructive Surgery, Cadi Ayyad University, Marrakesh, Morocco

*Corresponding author: Aghiouss Sofia

Department of Plastic and Reconstructive Surgery, Ibn Zohr University, Agadir, Morocco

Article History

Received: 03-04-2026

Accepted: 01-07-2026

Published: 04-07-2026



Abstract:

Ptosis is a common eyelid disorder that can cause significant functional and aesthetic impairment. This study aimed to describe the characteristics of ptosis and the outcomes of surgical treatment in our setting. **Methods:** We conducted a retrospective descriptive study of 15 patients treated for ptosis in the Plastic Surgery Department of Oued Eddahab Military Hospital, Agadir, over 18 months. All patients underwent levator palpebrae muscle resection, with skin resection when indicated. **Results:** The mean age was 39 years, and 73.3% of patients were male. Ptosis was unilateral in all cases and severe in 86.7%. Levator function was moderate in 80% and weak in 20%. Congenital ptosis was the most common etiology (53.3%), followed by senile (40%) and traumatic ptosis (6.7%). After a mean follow-up of 6 months, two patients had residual under correction. Overall, 86.7% of patients were satisfied with the functional and aesthetic results. **Conclusion:** Levator resection provided satisfactory functional and aesthetic outcomes in most patients, including those with severe ptosis.

Keywords: Ptosis, Blepharoptosis, Levator Resection, Eyelid Surgery, Surgical Outcomes.

Original Research

Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Ptosis is defined as a condition in which the free edge of the eyelid extends more than 2 mm beyond the limbus. It's due to a disorder of the levator muscle involving multiple etiologies [1]. The aim of this study is to determine the epidemiological and clinical profile of ptosis in our setting.

Methodology

This is a retrospective, cross-sectional, descriptive study conducted in the plastic surgery department at the Oued Eddahab Military Hospital in Agadir over an eighteen-month period. Our series includes 15 patients who were referred to us for surgery after an ophthalmologic evaluation.

RESULTS

Our series consisted of 15 patients and 73.33% of the patients were male. In regards to age, we had an average of 39 years old. 60% of our patients were in the 6–20 age group, followed by those over 60 years of age.

During our clinical evaluation, we found 100% unilateral ptosis with an eyelid slit height between 7 mm and 5 mm in 86.66% and 5 mm or less in 13.33%. Function of the levator muscle was moderate in 80% and weak in 20% of the cases. We found severe ptosis in 86.66% of the patients and moderate in 13.33%

Congenital ptosis accounted for 53.33% of our case whereas 40% of our patients had senile ptosis, and 6.6% had

traumatic ptosis. We performed resection of the levator palpebrae muscle (100%), combined with skin resection in 80% of cases. The mean follow-up was 6 months. When it comes to complications, two of our patients had insufficient results (Figure 1).



Figure 1: 10 years old patient who underwent levator and skin excision with insufficient results

Our patients reported satisfaction with the aesthetic and functional results in 86.6% of cases, while two (13.3%) were not completely satisfied with the aesthetic results.

DISCUSSION

The elevation of the upper eyelid is provided by the contraction of the levator muscle and its aponeurosis, the Müller muscle, and the Whitnall ligament [2]. Thus, surgical treatment is focused on these structures. Many techniques have been described treating the different structures that provide upper eyelid elevation.

After marking the skin excess when present, we infiltrated the subcutaneous plane

with Klein's solution. An 11 blade was used for skin incision before dissecting the orbicularis fibers allowing visualization of the levator aponeurosis and the septum and its underlying retro orbicularis fat pad (ROOF) allowing to visualize the levator muscle. The aponeurosis is then separated from the tarsal plate from the Müller muscle. A U prolene 5/0 suture is placed at the tarsal plate and at the aponeurosis of the levator depending on the markings of the planned resection at the center of the eyelid. After checking if the height on the eyelid and its contour are appropriate, the resection is performed and medial and lateral sutures are also performed before closing or performing a skin resection.

The resection of the levator muscle is a well established treatment for moderate ptosis who still have muscular function. It's the most physiological approach to the treatment of a ptosis case [1]. Whenever possible, it is preferable to perform levator surgery and reserve suspension techniques for very weak levators muscles [2]. However, frontal slings rarely yields satisfactory results [3]. For this reason, we suggested resection of the levator muscle even in severe cases. Especially since a secondary sling would remain possible in case of insufficient results.

Both muscular function and the degree of ptosis are used to measure the required amount of resection. When the muscle activity is poor to fair, the lid margin is positioned at the superior corneal limbus since a significant drop of several millimetres post-operatively is anticipated [4].

Our results were mostly satisfactory even in patients with insufficient correction of ptosis. We understand that the main complaint our patients had was an aesthetical one. Thus,

undercorrections were still seen as an improvement. We recommended further treatment for the two patients who had under corrections. To our knowledge, none underwent more surgeries.

When we compare our results with the literature, we find that the majority of authors consider congenital ptosis to account for more than three-quarters of diagnosed cases of ptosis, but that the incidence of acquired ptosis is increasing.

Jaouhari *et al.*, had a similar clinical profile as our study, our series however, reports a higher rate of undercorrection [5]. This can be explained by our higher rates of congenital ptosis, which is known to be associated with suboptimal outcomes due to the muscle atrophy.

CONCLUSION

Ptosis is an eyelid condition that requires diagnostic and therapeutic precision in order to restore visual comfort. Aesthetic concerns in this population shouldn't be ignored as that has been the chief complaint in our study.

REFERENCES

1. Utheim, T., Hodges, R. R., & Dartt, D. A. (2014). The eyelid. *Pathobiol Hum Dis.* 2014. doi:10.1016/B978-0-12-386456-7.04712-2
2. Masson, E. EM-Consulte [Internet]. [cited 2026 Aug 11]. Traitement chirurgical du ptosis. Available from: <https://www.em-consulte.com/article/825779/traitement-chirurgical-du-ptosis>
3. Pauly, M., & Sruthi, R. (2019). Ptosis: evaluation and management. *Kerala journal of ophthalmology*, 31(1), 11-16. doi:10.4103/kjo.kjo_2_19
4. Nirankari, M. S., Khanna, K. K., Gupta, M. G., & Singh, M. (1973). Levator resection in ptosis. How much and how? *Indian J Ophthalmol*, 21(3), 95.
5. 99-25.pdf [Internet]. [cited 2026 Jun 17]. Available from: https://cdim.fmp-usmba.ac.ma/e_theses/99-25.pdf