LUMEN ET VIRTUS

Surgical correction of orbital fat prolapse in the superomedial quadrant: A case report

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ABSTRACT

Introduction: Subconjunctival orbital fat prolapse is a rare condition where periorbital fat herniates due to weakening of Tenon's capsule and orbital septum, occurring most commonly in the superotemporal quadrant. Risk factors include advanced age, male sex, obesity and history of eye surgery. It can cause aesthetic and functional damage, requiring surgical correction. Methods: Case report of a 45-year-old patient with nodulation on the left upper eyelid, diagnosed with medial orbital fat prolapse. The prolapsed fat was resected and sutured with non-absorbable suture. Results: Postoperative period without significant complications, with only slight eyelid edema. The patient received lubricating and oral anti-inflammatory eye drops, with the suture removed after 14 days. After 6 months, there was no recurrence of prolapse. Conclusion: Although the literature on the treatment of orbital fat prolapse is scarce, especially for superomedial cases, the surgical approach in this case was successful until the sixth postoperative month, with team and patient satisfaction.

Keywords: Reconstructive surgical procedures, Orbital fat prolapse, Periorbital Surgery, Oculoplastic.

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INTRODUCTION

Subconjunctival orbital fat prolapse is a rare benign condition that is associated with herniation of periorbital fat into the sub-Tenon's space, due to weakening of Tenon's capsule and orbital septum1. Prolapse most commonly occurs in the superotemporal quadrant of the orbit2, but can also appear in the superomedial, inferomedial and inferotemporal quadrants.

Advanced age, male sex, obesity, thyroid orbitopathies and a previous history of eye surgery or trauma are considered risk factors for this condition3,4. However, prolapse can also occur spontaneously.

In addition to the aesthetic damage associated with decreased self-esteem, prolapse can cause functional damage related to the sensation of a foreign body in the orbit and difficulty closing the eyelids. Thus, surgical correction of herniation may be imperative in symptomatic patients5, although there is still no well-defined treatment protocol for this condition.

METHODS

This is a case report of a young 45-year-old patient, without comorbidities, complaining of nodulation in the left upper eyelid that had appeared 2 years ago, with mild local discomfort. Admitted via the Plastic Surgery outpatient clinic, where she was evaluated and diagnosed with medial orbital fat prolapse, pre-operative evaluation was carried out (figure 1).

Figure 1. Preoperative evaluation with finding of fat prolapse.



She underwent resection of prolapsed fat, under local anesthesia and light sedation (figures 2 and 3).

Figure 2. Appearance of prolapsed fat.



Figure 3. Appearance after resection of the prolapsed fat.



After the resection, the communicating orifice was sutured with non-absorbable thread (6-0 Prolene), with the aim of reinforcing Tenon's fascia. Suture externalized to the skin (figures 4 and 5).

Figure 4. Appearance after continuous suture.



Figure 5. Externalization of the suture to the skin.



RESULTS

The postoperative course was uneventful, with only mild eyelid edema. Lubricating and oral anti-inflammatory eye drops were prescribed. After 14 days, the suture was removed.

Late postoperative period (6 months), patient without prolapse recurrence (figure 6).

Figure 6. Post-operative period (6 months).



DISCUSSION

Although the occurrence of subconjunctival orbital fat prolapse is more frequent in the superotemporal region and more commonly affects men and the elderly, the present report highlights a case of successful surgical correction in the superonasal region affecting a middle-aged woman, a fact that makes it even more more unusual.

On examination, the patient presented a yellowish, mobile lesion with a smooth surface, covered by conjunctiva and with well-defined anterior and posterior limits. The differential diagnosis is based on the exclusion of other entities, such as lacrimal gland prolapse and dermolipomas6. In selected cases, it may be necessary to define and complement the diagnosis with imaging tests, such as Computed Tomography or Magnetic Resonance Imaging 7. However, it was not necessary to carry out such tests due to the clinical characteristics and delimitation of the lesion. Finally, it is worth highlighting that histopathological analysis is rarely necessary.

Orbital fat prolapse does not yet have a well-defined treatment protocol. However, the authors believe that surgery should be performed whenever there is an aesthetic or functional impairment, with an impact on patients' quality of life. In the patient presented, there was only a complaint of aesthetic discomfort and a surgical approach was chosen.

In the systematic review published by Secondi et al.1, 11 observational studies were analyzed, 9 of which were retrospective studies and 2 were prospective studies. Satisfactory surgical management of the condition was based on two categories: fat excision surgery or fat repositioning with subsequent fixation. The main technique used was transconjunctival excision with interrupted stitches, which is in line with that performed in the case report, in which the communicating pertusus was subsequently closed, with continuous suturing and exteriorization of the suture to the skin.

Knowledge about long-term results is still insufficient. The prospective study published by Siban et al.8 has the longest follow-up period. The excision technique with suturing of the conjunctiva and, if necessary, of the Tenon capsule was used. The sample consisted of 22 patients, only 3 of whom had superonasal prolapse. There was a total recurrence rate of 9% over a median time of 46 months, with no recurrence in the superomedial approach. However, prolapses were minimal and no patient requested re-approach.

The occurrence of complications is uncommon, such as surgical site infections, retrobulbar hemorrhage, erroneous manipulation of the lacrimal gland and involvement of extraocular muscles (1). The authors believe that complications may be associated with the surgeons' experience in relation to the technique used.

CONCLUSION

Therefore, although the literature for the approach to orbital fat prolapse is scarce, especially in cases of superomedial prolapse, there was success in the surgical approach and follow-up until the sixth month postoperatively. Staff and patient were satisfied with the result.

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