

## TREATMENT OF CONGENITAL EYELID PTOSIS USING FASCIA LATA TENSOR: A CASE REPORT

---

*Salustiano Gomes de Pinho Pessoa*

Faculdade UFC

Cidade: Fortaleza

<http://lattes.cnpq.br/4395529533428554>

*Maria de Fátima de Brito Coutinho*

*Nogueira Lima*

Faculdade: UFC

Cidade: Fortaleza

<https://lattes.cnpq.br/2448519167007765>

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



**Abstract: Introduction:** Eyelid ptosis is characterized by impaired opening of the upper eyelid. In the primary gaze position, 1 to 2 mm of coverage of the iris by the limbus of the upper eyelid is expected as a normal eyelid opening. This dysfunction can be congenital or acquired. Furthermore, eyelid elevator muscle dystrophy can manifest as mild, moderate and severe ptosis, and its treatment is surgical. Objective: To report a case of severe congenital eyelid ptosis treated with frontal suspension using fascia lata. **Report of case:** A.L.C.M., 8 years old, female, born and living in Limoeiro do Norte - CE, sought the Plastic Surgery outpatient clinic of `` Hospital Universitário Walter Cantídio`` (HUWC), reporting right eyelid ptosis. Three years ago, she had undergone surgical treatment for right eyelid ptosis at the same service, but reported a gradual recurrence of the condition 1 year after surgery. According to the surgical report of the first approach, there was considerable fragility of the aponeurosis of the eyelid levator muscle, which was refixed to the tarsal plate at the time of surgery. On physical examination, the patient had severe ptosis on the right and poor function of the eyelid elevator muscle. Given the clinical picture, it was decided to perform the frontal suspension technique using the fascia lata tensor muscle band. **Discussion:** Autogenous fascia lata is considered, in many cases, the material of choice for performing frontal suspension surgery. Surgical treatment of eyelid ptosis is extremely important for improving quality of life, since the loss of visual field, a direct consequence of the aforementioned condition, can also alter the visual acuity of the eye ipsilateral to the affected eyelid. **Conclusion:** The use of fascia lata in the frontal suspension technique for the treatment of severe eyelid ptosis promotes satisfactory and lasting results in terms of eyelid opening.

**Keywords:** Eyelid ptosis; Tensor Fascia Lata; front suspension; surgical treatment.

## INTRODUCTION

Eyelid ptosis or blepharoptosis is characterized by impaired opening of the upper eyelid. In the primary gaze position, 1 to 2 mm of coverage of the iris by the limbus of the upper eyelid is expected as a normal eyelid opening. This dysfunction can be congenital or acquired. Congenital eyelid ptosis arises mainly from dystrophy of the elevator muscle of the eyelid, is genetic in nature and is most commonly unilateral. Levator eyelid muscle dystrophy can manifest as mild ptosis (coverage of 2 to 4 mm of the iris), moderate (coverage of 4 to 6 mm of the iris), and severe (coverage greater than 6 mm of the iris) and its treatment is surgical.

Surgical treatment of eyelid ptosis is crucial for the functional restoration of the eye opening, since this condition implies a reduction in the visual field and astigmatism caused by amblyopia in pediatric patients. The choice of technique to be used depends on the degree of ptosis (mild, moderate or severe), the functional capacity of the upper eyelid lifter muscle, age and other clinical characteristics of the patient, such as the presence of neurological abnormalities.

Regarding the function of the eyelid elevator muscle, this can be assessed using the Berke and Wadsworth method, which is based on blocking the elevator action by digital compression and measuring the excursion of the upper eyelid between infraversion and supraversion, whose measurements were 0.8 and 0.9 mm, respectively. According to this criterion, the function of the lifter was considered poor, as the excursion was less than 4 mm.

The frontal is a technique indicated in cases of severe ptosis resulting from dysfunction of the eyelid elevator muscle, the repercussion

of which is a severe impairment of the visual field on the affected side. It can be carried out using different materials, including autologous materials such as fascia lata or synthetic materials such as nylon or silicone tape. Fascia lata is a material that makes it possible to obtain a sustained result, presenting a larger eyelid opening in the late postoperative period, with the only disadvantage of requiring a donor surgical site, but still characterized as a material of extreme safety and quality for the suspension.

## GOAL

To report a case of severe congenital eyelid ptosis, treated with frontal suspension using fascia lata.

## REPORT OF CASE

A.L.C.M., 8 years old, female, born and living in Limoeiro do Norte- CE, sought the Plastic Surgery outpatient clinic of `` Hospital Universitário Walter Cantídio`` (HUWC), reporting right eyelid ptosis. Three years ago, she had undergone surgical treatment for right eyelid ptosis at the same service, but reported a gradual recurrence of the condition 1 year after surgery. According to the surgical report of the first approach, there was considerable fragility of the aponeurosis of the eyelid levator muscle, which was refixed to the tarsal plate at the time of surgery.

On physical examination, the patient had severe ptosis on the right and poor function of the eyelid elevator muscle. Given the clinical picture, it was decided to perform the frontal suspension technique using the tensor fasciae latae muscle band.

## SURGICAL TECHNIQUE

The surgical procedure was performed under general anesthesia, taking into consideration the patient's age group. After anesthesia, local infiltration of 1% lidocaine with adrenaline diluted 1:200,000 was performed in the area to be treated.

While waiting for the time necessary for the vasoconstrictor effect to take effect, two incisions were made on the patient's lateral thigh, one proximal measuring 2 cm and the other distal measuring 4 cm, 12 cm apart. Through these incisions and with the aid of Metzenbaum scissors and hemostatic forceps, the fascia lata was dissected and a segment measuring 1 cm wide by 12 cm long was extracted. Using a 15 blade, scraping was performed to thin the autologous material, which allowed the production of tapes approximately 3 mm thick. The latter were placed in saline at room temperature.

The surgical procedure was continued by making an incision 8 mm from the ciliary edge on the right upper eyelid, with subsequent dissection up to the tarsal plate. Using Prolene 5-0, the fascia lata tensor band was fixed at three points on the anterior surface of the tarsus.

Two 5 mm incisions were made on the upper margin of the ipsilateral eyebrow, at the level of the lateral corner and the medial corner of the eye, 3 cm apart, which were as deep as the periosteum. A third supraciliary incision was made on the pupil line, 0.5 cm from the previous ones, forming an isosceles triangle.

Using a Wright needle, the two ends of the fascia lata strip were passed to the medial and lateral superciliary region. The band's fixation points were covered by suturing the orbicularis muscle with 5-0 colorless Vicryl. Then, with the Wright needle, the ends of the band were moved to the central incision.

A surgical knot was made with the ends of

the tape, adjusting it so that it was firm enough to correct the ptosis without generating other deformities. After safety suturing with 6-0 Prolene, we continued with hemostasis review and suturing in continuous stitches on the upper eyelid, and in single stitches on the other incisions.

Finally, a Frost stitch was applied with Prolene 5-0 for eye protection, which was removed after 5 days.

## DISCUSSION

Autogenous fascia lata is considered, in many cases, the material of choice for performing frontal suspension surgery, as it has characteristics that allow a good functional and aesthetic result. It is a solid material, well tolerated, non-absorbable, and produces harmonious eyelid and frontal traction. Its disadvantages are the need to approach another surgical site to obtain it, as it is located far from the correction area, in addition to the need to maintain a certain degree of rest after surgery to avoid muscle hernia in the thigh region and generation of a visible scar. of the donor area.

In cases of severe blepharoptosis and poor function of the eyelid elevator muscle, the most recommended treatment is frontal suspension, generating better aesthetic and functional results; In the case described in this report, the unilateral procedure was chosen due to the patient's age group.

In the frontal suspension reported, a skin incision was made in the right upper eyelid in the same way as performed for surgery on the aponeurosis of the upper eyelid levator muscle. This technique results in a better aesthetic result of the sulcus and contour of the eyelid margin. The fascia was fixed to the tarsus with the aim of preventing its upward displacement, adjusting it so that the eyelid contour became harmonious and aesthetic.

Surgical treatment of eyelid ptosis is extremely important for improving the

quality of life, since the loss of the visual field, a direct consequence of the aforementioned condition, compromises the quality of life and can also alter the visual acuity of the eye ipsilateral to the eyelid. affected. Therefore, especially in severe cases, visual limitations can lead to dependence in carrying out daily activities, such as reading and performing fine motor movements, harming school-age children, like the patient in question.

Furthermore, psychological factors also considerably affect the quality of life due to the unsightly aspect of the disease, which may be responsible for problems with self-esteem, manifested by insecurity and shame about one's own body, or even suffering from prejudiced and intimidating comments made. by third parties, with the surgical correction procedure being important as an instrument that promotes greater functionality and mental health.

Early treatment is recommended in situations involving a congenital disease, since the consequences already mentioned affect the child's neuropsychomotor development, intensifying functional impairments. Furthermore, a delayed approach can accentuate muscular dystrophy, making adequate correction difficult and increasing recurrence rates after surgery.

Classifying the degree of eyelid ptosis is a determining factor in the surgical outcome, as it establishes the most appropriate technique for the approach. In the case of severe ptosis, for example, reinsertion and/or plication of the aponeurosis of the elevator muscle of the eyelid would result in under correction and the need for re-approach, placing the patient at greater risk. Therefore, a correct classification is essential for the expected result to be achieved, with the frontal suspension technique being more suitable in this situation, due to the extremely reduced function of the eyelid lifter muscle.

## CONCLUSION

The use of fascia lata in the frontal suspension technique for the treatment of severe eyelid ptosis promotes satisfactory and lasting results in terms of eyelid opening.

## REFERENCES

ASANO, M. E.; OSAKI, M. H. Avaliação de qualidade de vida em portadores de blefaroptose. **Arquivos Brasileiros de Oftalmologia**, v. 69, n. 4, p. 545–549, ago. 2006.

ASANO, M. E.; OSAKI, M. H. Avaliação de qualidade de vida em portadores de blefaroptose. **Arquivos Brasileiros de Oftalmologia**, v. 69, n. 4, p. 545–549, ago. 2006.

BERKE, R. N.; JOSEPH A.C. WADSWORTH. Histology of Levator Muscle in Congenital and Acquired Ptosis. **Archives of Ophthalmology**, v. 53, n. 3, p. 413–428, 1 mar. 1955.

COSTA, R. H. A. et al. Comparação da fásia lata, faixa de silicone e fio de polipropileno na cirurgia de suspensão frontal para correção de ptose palpebral grave. **Revista Brasileira de Oftalmologia**, v. 80, n. 6, 2021.

FEIJÓ, E. D. F.; NERY, A. C. S.; LIMONGI, R. M. Frontalis sling surgery: do we really need the Wright needle? **Revista Brasileira de Oftalmologia**, v. 75, n. 2, 2016.

NUNES, T. P. et al. Uso da fásia temporal na suspensão frontal: descrição da técnica cirúrgica - Relato de caso. **Arquivos Brasileiros de Oftalmologia**, v. 67, n. 2, p. 323–324, abr. 2004.

NUNES, T. P. et al. Uso da fásia temporal na suspensão frontal: descrição da técnica cirúrgica - Relato de caso. **Arquivos Brasileiros de Oftalmologia**, v. 67, n. 2, p. 323–324, abr. 2004.

**PakMediNet**. Disponível em: <<https://www.pakmedinet.com/13986>>. Acesso em: 15 jan. 2024.

PARK, D. H.; JUNG, J. M.; SONG, C. H. Anthropometric analysis of levator muscle function. **Plastic and Reconstructive Surgery**, v. 121, n. 4, p. 1181–1187, 1 abr. 2008.

SAITO, F. et al. Cirurgia da ptose palpebral: análise de dois tipos de procedimentos cirúrgicos. **Revista Brasileira de Cirurgia Plástica**, v. 25, n. 1, p. 11–17, 1 jan. 2001.

SILVA, T. et al. Treatment of congenital ptosis by using the Lester Jones technique. **Revista Brasileira de Cirurgia Plástica**, v. 29, n. 4, p. 575–577, 1 jan. 2001.