

SURGICAL TREATMENT OF CONGENITAL PTOSIS OF THE UPPER EYELIDS

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Abstract

In childhood, closing the pupil with the upper eyelid leads to the development of amblyopia in 20-70%. The main methods of surgical treatment of blepharoptosis in the absence of the function of the muscle that lifts the upper eyelid are suspension operations.

Material and methods. A 2-year-old child presented with congenital ptosis of the right upper eyelid. Palpebral fissure versus right narrowed by 0.5 cm. Excursion of the left upper eyelid 0.9 cm, right 0.3 cm.

After the written consent of the parents, the child underwent an operation to eliminate ptosis of the right upper eyelid by implantation parts of the superficial flexor of the hand.

Results. The variety of suspension operations for blepharoptosis is associated not only with the many options for conducting a suspension suture (single and double diamond-shaped, triangular, U-shaped, etc.), but also with the materials used - biological and synthetic.

Conclusion. According to our research, synthetic materials allow you to get a more stable good result, but we used a tendon.

<https://doi.org/10.35805/BSK20221021>

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Conflict of interest
The authors declare that they have no
conflicts of interest

Keywords
congenital pathology,
ptosis of the eyelids, tendon

Вариант хирургического лечения врожденного птоза верхних век

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Аннотация

В детском возрасте закрытие зрачка верхним веком приводит к развитию амблиопии в 20-70%. Основными методами хирургического лечения блефароптоза при отсутствии функции мышцы, поднимающей верхнее веко, являются подвешивающие операции.

Материал и методы. У ребенка 2-х лет врожденный птоз правого верхнего века. Глазная щель относительно правого сужена на 0,5 см. Экскурсия левого верхнего века 0,9 см, правого 0,3 см. С письменного согласия родителей ребенку была проведена операция по устранению птоза правого верхнего века имплантацией части поверхностного сгибателя кисти.¹²

Результаты. Разнообразие подвесных операций при блефароптозе связано не только с множеством вариантов проведения подвесного шва (одинарный и двойной ромбовидный, треугольный, П-образный и др.), но и с применяемыми материалами - биологическими и синтетическими.

Заключение. По нашим исследованиям, синтетические материалы позволяют получить более стабильный хороший результат, но наш опыт применения сухожилия может быть предложен как один из методов лечения.

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Ключевые слова
врожденная патология,
птоз век, сухожилие

Туа біткен үстіңгі қабақ птозының хирургиялық емдеу әдісінің түрі

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Аңдатпа

Балалық шақта қарашықты жоғарғы қабақпен жабу 20-70% амблиопияның дамуына әкеледі. Жоғарғы қабақты көтеретін бұлшықеттің қызметі болмаған кезде блефароптозды хирургиялық емдеудің негізгі әдістері көтерме операциялары болып табылады.

Материал және әдістер. 2 жасар балада оң жақ қабақтың туа біткен птозы бар. Пальпбральды жарықшақ оң жаққа қарағанда 0,5 см тарылған. Сол жақ жоғарғы қабақтың экскурсиясы 0,9 см, оң жақ қабақтың экскурсиясы 0,3 см. Ата-анасының жазбаша келісімімен балаға оң жақ қабақтың птозын жою операциясы жасалды. Қолдың сіңірінің имплантациясы арқылы оң жақтың жоғарғы қабағының пластикасы жасалды.

Нәтижелер. Блефароптозға арналған көтерме операцияларының әртүрлілігі қос алмас тәрізді, үшбұрышты, U-тәрізді және т.б.) ғана емес, сонымен қатар қолданылатын материалдармен - биологиялық және синтетикалық.

Қорытынды. Біздің зерттеулерімізге сәйкес, синтетикалық материалдар тұрақты жақсы нәтиже береді, бірақ сіңірге қатысты тәжірибеміз емдеу әдістерінің бірі ретінде ұсынылуы мүмкін.

Introduction

In childhood, closing the pupil with the upper eyelid leads to the development of amblyopia in 20-70%. The main methods of surgical treatment of blepharoptosis in the absence of the function of the muscle that lifts the upper eyelid are suspension operations.

Currently, autogenous materials are used to eliminate congenital ptosis of the upper eyelids: hip fascia, temporal fascia. Synthetic materials - polypropylene, silicone, supramide nylon seam. [1,2, 3,4].

We present a case report of congenital ptosis of the right upper eyelid which was removed using by our an improved method applying a tendon graft.

Materials and methods

The informed consent was obtained from the

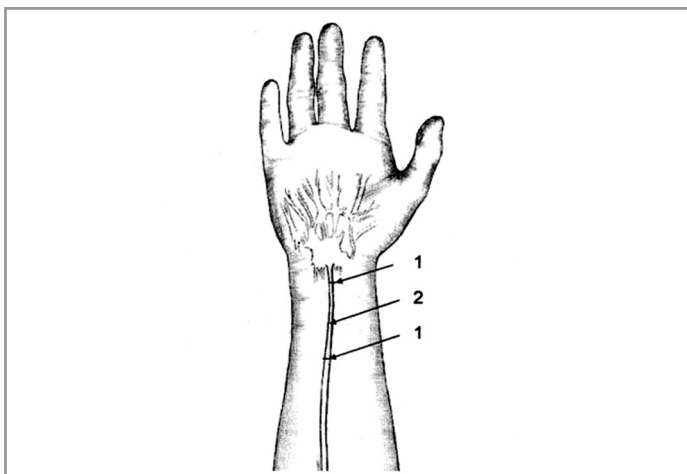
child's parents involved in this study according to the Institutional Review Board and all procedures were in accordance with the institutional and national ethical standards.

A 2-year-old child presented with congenital ptosis of the right upper eyelid. Palpebral fissure versus right narrowed by 0.5 cm. Excursion of the left upper eyelid 0.9 cm, right 0.3 cm.

Under general anesthesia, the child underwent surgery to eliminate ptosis of the right upper eyelid by implanting a superficial flexor of the wrist.

In the lower third of the right forearm over the tendon superficial flexor of the hand carried out two transverse skin incision 0.5 cm long (Figure 1. 1) and took part of the superficial flexor of the hand, 5 cm long (Figure 1. 2).

Figure 1.
Superficial flexor of the
hand for the grafting



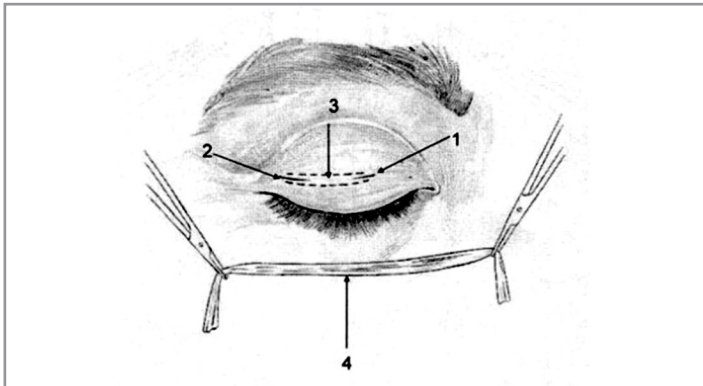


Figure 2.
Π-shaped channel

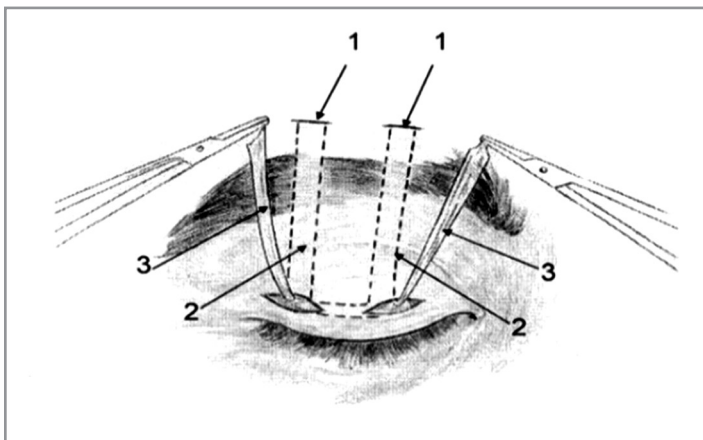


Figure 3.
Transplant fixation in the
superciliary region

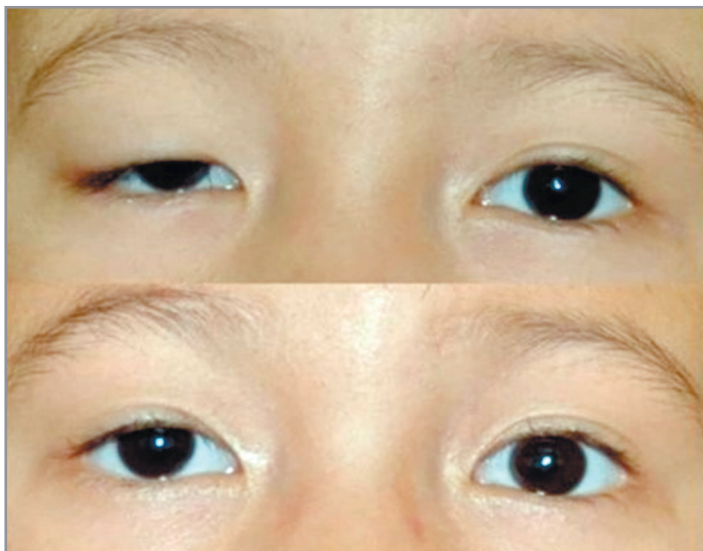


Figure 4.
The result after 8 months
of operation

In the middle third of the upper eyelid at the level of the upper cartilage of the eyelid performed two incisions (Figure 2. 1, 2). Between two skin incisions, we formed the first subcutaneous canal (Figure 2. 3). Part of the tendon of the superficial flexor of the hand-prepared for insertion into the formed Π-shaped channel (Figure 2. 4).

Two small incisions are also made in the superciliary region (Figure 3. 1). Perpendicular to the first channel, two other subcutaneous canals to the frontal muscle (Figure 3. 2). Then an autograft was performed (part of the tendon superficial flexor of the hand (Figure 3. 3) in formed Π-shaped channel starting

from the first one, which is formed at the level of the upper cartilage of the century in the middle third of the century. Ends autograft (Figure 1. 3) is fixed (Figure 1. 3) to superciliary muscle, so that the eyelid covers the pupil of the eye on $\frac{3}{4}$.

Post-operative course and long term result

On the 3rd day after surgery: edema of the upper eyelid asleep. The palpebral fissures are symmetrical. Closing upper eyelid function restored. 8 months after surgery, the patient recurred ptosis of the upper eyelid and the development of the cicatricial process was not observed (Figure 4).

Result and discussion

The variety of suspension operations for blepharoptosis is associated not only with the many options for conducting a suspension suture (single and double diamond-shaped, triangular, U-shaped, etc.), but also with the materials used - biological and synthetic. According to our research, synthetic materials allow you to get a more stable good result, but we used a tendon. However, many foreign authors prefer autofascia due to the high percentage of successful operations up to 90% in the early postoperative period. The long-term suspension effect from the use of allomaterials persisted only in half of the cases [5, 6]. All patients who came to us after implantation of autofascia showed deformity of the upper eyelid and the development of contractures. In all cases of weakening the effect and the development of an infectious process, we performed the removal of auto- and allo-materials, which was complicated by the germination of the implant by fibrovascular tissue [7,

8]. According to the literature, polypropylene threads are used as a suspension in young children to prevent the development of amblyopia. The advantage of their use is that they do not grow into fibrovascular tissue and are easily removed in patients who are scheduled for implantation of the latissimus fascia at an older age [9, 10]. The literature describes cases of rupture and cutting of polypropylene threads [11]. According to our study, suppuration and the development of suture granulomas, as well as a change in the shape of the upper eyelid, can be considered a disadvantage of polypropylene threads. The same complications are typical for silicone threads. Their use as a suspension often led to the development of re-ptosis, since this material is very elastic, stretches well and often unties and shifts.

This method of performing ptosis elimination upper eyelid improves results restoration of the function of the upper eyelid and the continuation of research in this direction is relevant [12, 13].

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