

# Pediatric Blepharoptosis: A Case Study Two Ways

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*WRITER'S COMMENT: In UWP 104F, Professor Clarke asked us to interview someone with a medical condition and then tell their story in two ways: as an academic case report and as an informal narrative essay. I decided to write about my mother's treatment for a childhood eye condition. My mom had told me bits and pieces about this experience prior to our interview for this assignment, but I had never before heard her whole story from start to finish. In writing this piece, I enjoyed the challenge of telling the same story from such different perspectives and with radically different writing styles. I think the personal narrative of the young patient adds depth to the technical account of the medical specialist, just as the objective medical report gives valuable context to the child's story. Having been born with a much milder version of the same eye condition as my mom, I was already interested in this topic; but I hope that even readers without this connection will find something interesting or relatable in my essay.*

*INSTRUCTOR'S COMMENT: In training for the health professions, students fairly readily learn to decode the medical record's details of symptoms, diagnosis, treatment, and outcome. What's harder is leaning into the patient's lived experience of confusion, pain, hope, and loss. In UWP 104F (Writing for the Health Professions) we often use the Parallel Case Studies assignment to introduce students to the formal case report that will feature in their professional training and to introduce them to the art of listening to and eliciting the patient's story. Students interview someone with a health condition and write*

*both the sort of case study that would appear in a medical journal and a “pathography,” the patient’s own illness narrative. Lauren beautifully differentiates between the highly formatted, objective case report and the story of how Carol herself understands her illness. Economy of language and choice of detail is what makes them both so good. The story of a little girl forced to grow up too soon is what breaks our hearts.*

*— Amy Clarke, University Writing Program*

## Unilateral congenital blepharoptosis—surgical intervention and comorbid amblyopia

### Abstract

**I** report on the case of an infant presenting with severe congenital blepharoptosis. At birth, the ptotic eyelid completely occluded the optical axis of the left eye. Unsuccessful levator resection and frontalis sling surgeries were performed at one and three years of age, respectively. A successful repair was performed at five years of age with a frontalis sling procedure using autologous fascia lata. The patient was subsequently diagnosed with amblyopia and strabismus, and placed on a regimen of eyepatch occlusion therapy. This therapy was discontinued due to psychosocial stress manifesting as psychogenic paralysis. The patient continues to suffer from amblyopia and strabismus of the ptotic eye, but demonstrates limited vision in the left eye.

### Introduction

Blepharoptosis, or ptosis, is a drooping of the upper eyelid resulting in an abnormally low upper eyelid position and narrow palpebral fissure. Ptosis may be caused by weakness of the levator palpebrae superioris and Muller’s muscles, malfunction of the nerves controlling the eye muscles, or excess skin of the upper eyelid.<sup>1</sup> The presence of fibrous and adipose tissue in the levator muscles is the most common cause of ptosis in pediatric cases.<sup>1</sup> Congenital ptosis of this origin has been estimated to affect 1 in 842 live births.<sup>2</sup>

Surgical intervention is indicated in cases where eyelid drooping impairs vision, though patients may elect for cosmetic surgery in less severe cases.<sup>1</sup> Early surgical intervention is particularly important in cases of optical-axis-obscuring congenital ptosis, as amblyopia has been found to occur in 76% of these cases.<sup>3</sup>

## **Case Summary**

The female patient was born at term to a healthy G2P2 mother and non-consanguineous father. The pregnancy was unremarkable and there is no family history of ptosis or musculoskeletal disease. At birth, low positioning of the left eyelid was noted, though pupillary light reflexes were normal in both eyes. No improvement was seen at follow-up appointments and the eyelid continued to occlude the optical axis. The patient was subsequently diagnosed with unilateral congenital ptosis. The left globe appeared healthy and patient development was otherwise normal.

Levator palpebrae superioris resection was performed at one year of age. The surgery was completed without complication. However, following the procedure, the eyelid continued to obstruct the left optical axis. At three years of age, synthetic suture was used to suspend the patient's left tarsus from the frontalis. However, this procedure was complicated by post-operative infection, necessitating removal of the sling. At five years of age, a successful frontalis sling procedure was performed using autologous fascia lata as the tarsus-frontalis suspender and good palpebral symmetry was achieved.

Following recovery, the patient was diagnosed with esotropic strabismus and severe amblyopia of the left eye. Occlusion therapy was initiated and adhesive patches were prescribed to occlude the vision of the dominant eye during daily activities. Despite this therapy, visual acuity in the left eye remained poor. After several months of treatment, the patient developed psychogenic limb paralysis likely associated with the psychosocial stress of eyepatch treatment occlusion therapy was discontinued.

Continuing ophthalmic evaluations yielded diagnoses of childhood myopia and astigmatism. Secondary to persistent amblyopia and strabismus, the patient suffered deficits in stereovision. Lagophthalmos and chronic dry eye were also present as a result of the frontalis sling

procedure. The use of glasses and continued reliance on the dominant eye allowed the patient sufficient visual acuity for all normal activities.

## Discussion

This case represents a common presentation of pediatric ptosis, as approximately 90% of pediatric ptosis cases are congenital, 75% are unilateral, and 68% of unilateral cases involve the left eyelid.<sup>1,2</sup> Amblyopia is a common comorbid finding with ptosis and strabismus occurs at a significantly elevated rate among congenital ptosis patients, though the cause of these findings is disputed in the literature.<sup>4</sup> Depending on the pathogenesis of this patient's amblyopia and strabismus, earlier intervention to clear the optical axis may have reduced the severity of the symptoms present post-surgery.

This is the first report of psychogenic symptoms resulting from occlusion therapy. The onset of conversion disorder in this case is a powerful indication of the psychosocial stress some patients may experience as a result of occlusion therapy.<sup>5</sup> Accordingly, clinicians should monitor the psychological state of patients undergoing this therapy and adjust treatment regimens as necessary. Furthermore, patient and parent education strategies have been shown to improve compliance with occlusion therapy and may reduce the stresses associated with this treatment.<sup>6</sup>

## Carol's Eyepatch

Sitting cross-legged in front of the TV, Carol watched, entranced, as Peter Pan glided gracefully across the screen. In this 1963 broadcast, these feats of flight were accomplished thanks to a complex system of wires and pulleys—but five-year-old Carol was unconcerned by these details.

“I’ll never grow up,” sang Peter to his gang of Lost Boys.

There came a knock at the door and Dr. Frissell was let in, removing his hat as he stepped over the threshold. Dr. Frissell’s ruddy face was familiar to Carol since he had been her ophthalmologist for as long as she could remember.

As an infant, Carol was diagnosed with ptosis of the left eyelid, meaning that her eyelid muscles were too weak to open her eye. In most cases, this weakness is due to deposits of fibrous or fatty tissue in the

muscle and requires surgical repair. When she was one year old, Carol had surgery to shorten her eyelid. She underwent another procedure when she was three years old to surgically attach her eyelid to the muscles of her forehead. Both surgeries were unsuccessful.

Luckily, just a few months prior, a new surgeon had used a piece of connective tissue from Carol's thigh to suspend her eyelid from her forehead muscles. This time the surgery was successful and Carol was now able to raise her eyelid.

However, Carol still could not see clearly with this eye. Her brain had never learned how to use her left eye properly because she'd spent the first five years of her life with it closed. Even now that her left eye was open, her brain continued to rely exclusively on her other eye. This imbalanced use of right and left eyes is called amblyopia. Her left eye was also strabismic, meaning it had a tendency to turn inwards towards her nose instead of matching the movement of her other eye.

It was this amblyopia and strabismus that had brought Dr. Frissell on his house call. Rummaging in his bag, he pulled out what appeared to be a large Easter egg-shaped Band-Aid.

"Look what I have for you," he said, holding it out. "An eyepatch!" Glancing at the TV, where Captain Hook and his crew cavorted about the deck, he added, "Like a pirate!"

Dr. Frissell explained that Carol was to wear a patch over her dominant right eye during the day in order to re-train her brain to use her weaker left eye. But Carol hated eyepatches: they were hot, they smelled like rubber, and their tan color made it look like she had no eye at all.

The worst part about the patches was that she simply could not see while wearing them. When she looked through her left eye, things were not blurry; rather it was as though fragments of the image were jumbled and moving. Peering down the flight of cement steps outside her elementary school, she could see straight edges and the sharp contrast between sunbaked concrete and dark shadows, but she couldn't piece together a cohesive image. It was there at the top of the stairs that the peeking started.

Carol found she could peel back the corner of the patch to create a little opening along the side of her nose. Through this window, she could see important things with her dominant eye. But this peeking brought with it another problem: it made adults mad. Peeking got her in trouble with teachers, upset her aunts, and angered her parents, but the

alternative was blindness.

Under this pressure, Carol's psychological well-being gradually declined. Several months into eyepatch therapy, Carol woke up to find that she could not move her legs. A trip to the pediatrician brought the diagnosis of psychosomatic lameness. The stress of wearing the eyepatch had proved too much for Carol's five-year-old mind and had manifested as physical paralysis. Upon hearing this, Dr. Frissell discontinued Carol's eyepatch therapy and, soon after, Carol was back to running and playing.

At last, Carol was free from eyepatches, but she was undoubtedly changed by the experience. No one—except Peter Pan, perhaps—can expect to stay a child forever. However, Carol can't help but feel that her eye conditions forced her to grow up a little too fast. Carol still suffers from strabismus and severe amblyopia, but has come to accept these conditions as part of who she is. Looking back, she hopes new methods of care will be developed to make amblyopia treatment less stressful for young patients.

## Works Cited

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