

# Treatment of adult strabismus: more than meets the eye

Contrary to the commonly held view, there are considerable functional benefits in treating adults with strabismus, beyond the obvious psychosocial benefit from altered appearance. In experienced hands, specialised strabismus surgery techniques can achieve an alignment success rate of 90% in these patients, with a very low risk of adverse events such as overcorrection or diplopia.

There are two main types of adult strabismus.

## Acquired strabismus

As the adult CNS does not have the plasticity required to suppress the image from the deviating eye, intermittent or constant diplopia results. Other symptoms include asthenopia (ocular fatigue), an abnormal head posture or any combination thereof.

Causes include microvascular cranial mononeuropathies, thyroid orbitopathy, myasthenia and retinal detachment surgery.

These patients may or may not have an obvious misalignment, but will seek treatment for symptoms and are generally adequately investigated and managed.

Treatment strategies include occlusion, prism glasses, botulinum toxin and surgery.

## Pre-existent childhood strabismus

Whether recurred or carried over from childhood, adult strabismus will have developed central (sensory) adaptations to their misalignment. The image from the deviating eye is suppressed, eliminating diplopia and confusion of visual direction.

Apart from the appearance of an often very

obvious misalignment, these patients are otherwise asymptomatic.

This is the group who are commonly wrongly discouraged from pursuing treatment.

## Treatment benefits

While improved appearance is one outcome, strabismus repair should be considered reconstructive surgery that seeks to restore normal structure and function, in much the same way we repair a cleft lip and palate.

All strabismus is an abnormal anatomical and physiological state. In terms of visual function, surgical realignment of the visual axes demonstrably improves sensory and motor fusion and stereopsis in over 80% of successful surgeries. The benefit here is the improvement in long term alignment stability.

The psychosocial impacts on adults with obvious strabismus can be substantial – embarrassed about appearance, a large proportion have low self-esteem, will avoid eye contact and will often try and camouflage the misalignment. In fact, these people are discriminated against and negatively regarded in terms of perceived intelligence, trustworthiness, attractiveness

and employability. Repair offers obvious advantages.

## Treatment misconceptions delay

In one large series, the mean delay in seeking treatment was 19.9 years, with a range of 1 to 72 years. Only a minority of treatable adult strabismus eventually have corrective surgery.

The most common misconceptions for not referring earlier for surgery are:

- *'Nothing can be done with a longstanding squint.'* It is extremely rare for a longstanding or previously operated squint to be inoperable, or for surgery to result in post-op visual dysfunction.
- *'Recurrence after surgery is high.'* Most patients only require one operation over a lifetime.
- *'Without a visual benefit, surgery is purely 'cosmetic.'* Reconstructive surgery restores normal anatomy, with both functional and psychosocial benefits.
- *'The risk of a worse squint is high.'* Risk of overcorrection is only 5-10%, for which further surgery is usually curative. ■



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