Positional head deformity and torticollis in infants

Learning points

1. Plagiocephaly and torticollis are more common than in the past.
2. With appropriate early advice and positioning plagiocephaly will resolve.
3. Treatment for both conditions is very effective when started early in life.
4. Surgery for torticollis is rarely required.
5. 1 in 5 children with torticollis may also have developmental dysplasia of the hip.

Positional head deformity

It is thought that, as a result of the back to sleep campaign, the incidence of positional head deformity (plagiocephaly) has increased. As a result of lying supine or with the head turned one way for prolonged periods of time, the skull can flatten posterolaterally, the ear is pushed forwards and the forehead becomes more prominent as shown in the figure. It is more common in children with torticollis and is said to be more common in “good babies” that sleep through the night.

The condition can cause a great deal of parental distress. It is important to reassure the parents, however, that positional head deformity does not affect the growth of the brain. It has a tendency to improve as the child develops head control and becomes more mobile, but some asymmetry may remain permanently. The deformity is rarely sufficient to merit surgical treatment.

With simple measures introduced early in life progression of the deformity can be halted. Prevention is easier than treatment and comprises simple advice to all parents about ensuring that their baby is not left lying facing one way for long periods of time. Treatment involves following advice about positioning of the child, particularly at night, and the use simple distraction techniques during play, bathing and nappy changes. The earlier treatment starts the better, and ideally it should start as soon as
Congenital muscular torticollis

Congenital muscular torticollis is the commonest cause of head tilt in infancy. A good outcome depends on early diagnosis and treatment.

The cause is unknown, but contracture of the sternomastoid muscle is the end result. The effect of this is that the ear is pulled down towards the shoulder on the affected side. Half of the babies with this condition have a palpable or visible swelling (tumour) in the muscle. Parents are frequently alarmed to hear their child has a ‘tumour’, thinking that their child may have cancer and the term ‘tumour’ is best avoided. The swelling is simply ‘scarring’ within the muscle.

The children who do best with this condition are those in whom treatment starts as early in life as possible. A delay in start of treatment is associated with a higher risk of surgery. Stretching, supervised by a paediatric physiotherapist, and positioning result in a cure rate of over 90% by the age of one year (Eadie, J unpublished data, Yorkhill).

Up to 20% babies may also have developmental dysplasia of the hip, so careful clinical assessment and ultrasound of the hip is advisable.

Referral of children with torticollis should be made as soon as the diagnosis is made, to the local paediatric physiotherapy department.