A baby was born with proptosis of the right eye at 35 weeks. The baby had required rotation by Keillands forceps, but delivery failed and the baby was delivered by emergency caesarean section after disimpaction of the head from the pelvis. At birth the baby was noted to have a complete proptosis of the right globe and a Keillands forceps mark over the right temporoparietal area but no direct orbital injury (fig 1). Both upper and lower eyelids were retracted exposing the sclera. The pupil of the proptosed eye was mid-sized and unreactive to light. The eye was immediately treated with lubricants and covered with gelopern to prevent exposure keratopathy and corneal ulceration. Spontaneous resolution of eye lid retraction occurred around one hour after birth leading to an appreciable reduction of the proptosis.

Non-contrast computed tomography of the head at 5 hours of age showed mild right eye proptosis with normal optic nerves and retro-orbital space. Oedema settled over five days, and on discharge only pupillary responses remained abnormal. At 4 weeks of age ophthalmic examination was entirely normal.

The likely differential diagnoses in cases such as this are: craniosynostosis; traumatic orbital congestion or retrobulbar bleed from instrumental delivery; or a retro-orbital mass. However, in the absence of direct orbital injury, we believe that the proptosis in this case was caused by a vacuum effect upon disimpaction of the head. Immediate computed tomography or magnetic resonance imaging after birth is essential to determine the diagnosis and treatment required. Simple protective measures and analgesia should be instituted before scanning is carried out.

Parental consent was obtained for publication of figure 1.

References

Figure 1  Globe being displaced forward.