FACIAL PARALYSIS COMPLICATING SPLINTAGE
FOR CONGENITAL DISLOCATION OF THE HIP IN THE NEWBORN

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In recent years early diagnosis of congenital dislocation of the hip has enabled treatment to be started within a few days of birth (Von Rosen 1962, Barlow 1962). Simply splinting the hips in abduction for the first three months of life is then almost always successful. It is inevitable that many hips which appear to be unstable at birth, but which would not develop congenital dislocation even if untreated, will be splinted. It is therefore of paramount importance that the treatment should be without complications.

CASE REPORTS

Case 1—A thirty-five-weeks premature baby girl was born in February 1965. The delivery was normal. Examination revealed an unstable left hip, and a Barlow type splint was fitted. Six days later right facial paralysis developed. The shoulder pieces of the splint had been altered so that

![Image]

FIG. 1
Case 2—Right-sided facial paralysis. The incorrect position of the shoulder pieces of the splint is shown.

they were too high and would press over the facial nerve when the head was tilted to one side. The splint was refitted correctly, with moulding of the shoulder pieces close to the clavicles. The facial paralysis persisted for three weeks before resolving completely.

Case 2—A full-term baby girl was born in March 1965. Delivery was by forceps, but there was no evidence of facial nerve damage. Examination revealed unstable hips. A Von Rosen type splint was fitted and the mother was allowed to take the baby home. When she returned to the clinic a week later right facial paralysis was present. It had been noticed by the mother two
days previously. The shoulder pieces of the splint had been altered so that they were too high and would press on the facial nerve when the head was tilted to one side (Fig. 1). The splint was refitted correctly, with moulding of the shoulder pieces close to the clavicles. The facial paralysis persisted for eight weeks before resolving completely.

Case 3—A full-term baby girl was born by Caesarian section in March 1965. She had multiple congenital abnormalities including an unstable left hip. A Von Rosen type splint was applied. Four days later right facial paralysis was noticed. The shoulder piece of the splint was found to be too high and was remoulded closer to the clavicle. The baby died a few days later because of the multiple congenital abnormalities.

Case 4—A baby girl seen in June 1965 was found to have unstable hips, but no other abnormality. When she was eight days old a Barlow type splint was applied. Six days later the mother noticed weakness of the face when the child was crying, and also difficulty in sucking. A right facial nerve lesion was found, together with slight weakness of the left lower eyelid. No marks were found on the neck. The splint was changed to a Putti-Forrester-Brown type. The facial paralysis gradually improved, but it was five months before complete resolution had occurred.

**DISCUSSION**

The facial nerve emerges from the stylomastoid foramen and proceeds downwards for a short distance before it enters the parotid gland. In the adult the nerve is protected from external pressure in this part of its course by the mastoid process. But the mastoid process does not develop until the second year of life and thus at birth the facial nerve lies in an unprotected subcutaneous position (Grant 1952).

Facial paralysis is a recognised complication of the use of obstetrical forceps. In the four patients described in this series the facial nerves were functioning normally at birth, and it was not until the splints were applied that facial paralysis developed. In no case were any marks seen on the skin, but in three of the cases it was noted that, at the time the child was brought with the paralysis, the fitting of the shoulder pieces of the splint had been altered so that they were standing well away from the clavicles. In this position lateral flexion of the neck during sleep would allow continuous pressure by the shoulder pieces over the facial nerve.

The prognosis for this type of facial paralysis seems favourable. In the three surviving babies complete recovery occurred at three weeks, eight weeks and five months, without any treatment other than the removal of the cause of the pressure.

**SUMMARY**

1. Four cases of facial paralysis from the incorrect use of Von Rosen or Barlow type splints are described.
2. Attention is drawn to the subcutaneous and therefore vulnerable position of the facial nerve in the newborn.

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**REFERENCES**

