Spontaneous elevation of a depressed skull fracture in an infant

Case report

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This is a report of an infant with a depressed skull fracture that apparently elevated spontaneously within a period of 4 hours.

Key Words: depressed skull fracture, infant, spontaneous elevation of depressed fracture

In infants, blows to the head may result in localized depressions without actual break in the continuity of the bone. These depressed skull fractures are comparable to “greenstick” fractures of long bones in children and have been described as “ping-pong ball” fractures. It is generally believed, though not by all, that these fractures in infants should be elevated, for the reason that localized brain swelling may occur which may impair the blood supply and interfere with the growth of the brain; this could produce an epileptogenic focus. Matson stated that all depressed skull fractures in infants should be elevated since they never reduce themselves spontaneously. This requires making a burr hole in the normal bone at the margin of the depressed bone and elevating the bone under local or general anesthesia. Cases have been described of nonsurgical treatment by elevating the depressed bone manually and by use of a breast pump.

The following is a case of an infant with a depressed skull fracture which apparently elevated itself spontaneously after a period of about 4 hours.

Case Report

This 3-month-old baby boy struck his head against the corner of a step when his mother accidentally dropped him while walking down stairs. There was no loss of consciousness, but his mother immediately noted a depression in the left parietal region of his scalp. He was admitted within 30 minutes of the accident.

X-ray films taken soon after admission showed a depressed fracture in the left parietal region (Fig. 1). On examination, this depression was visible and palpable. The head circumference was 40 cm, with the anterior fontanel small and depressed. The baby cried...
Spontaneous elevation of a depressed skull fracture

Fig. 1. Original anteroposterior (left) and lateral (right) skull films showing depressed fracture in the left parietal region. Areas of increased density in the lateral projection are artifacts.

Fig. 2. Anteroposterior (left) and lateral (right) skull films taken about 4 hours later. The depressed skull fracture is no longer visible.

almost constantly. He moved all his limbs well; the pupils were equal and reacted to light. Four hours later, as preparations were being made for surgery to elevate the depressed fracture, it was noted that the depressed area was neither visible nor palpable. Repeat skull films showed that the left parietal bone was no longer depressed (Fig. 2). The patient was observed in the hospital for several days but there was nothing to suggest the presence of a developing intracranial clot. When the baby was seen in the office about 2 weeks later, the head circumference had not increased and the anterior fontanel was small and depressed as noted previously.

Discussion

Approximately 4 hours later, the depressed fracture spontaneously elevated. There was no clinical evidence that the infant was developing a blood clot which could elevate the bone. Perhaps the frequent crying with the resulting increase in intracranial pressure caused the bone to elevate.

References


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