

Bilateral Humerus Fracture in Newborn : A Rare Case Report



Medical Science

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ABSTRACT

Neonatal fractures during birth are rare. It is even rarer following a caesarian delivery as compared to vaginal delivery. Bilateral fractures are also very rare, with a very few reports available in literature. We present a case of bilateral humerus fracture in a preterm neonate following caesarean section due to breech presentation and provide guidelines for management and follow up.

Introduction:

Neonatal injuries complicate about 1% of Caesarean deliveries. [1] Caesarean section is considered to be safer than the vaginal delivery. However, injuries such as fractures in neonates may occur after a difficult caesarean delivery. Bilateral humerus fractures during birth, which is extremely rare, can occur during Caesarean section.[2] We report here a case of bilateral humerus fractures in a preterm neonate during birth following a difficult Caesarean section due to breech presentation.

Case report:

A pre-term infant was delivered in our hospital. Caesarean section was done due to difficult labor following breech presentation. The neonate had birth asphyxia and was subsequently admitted in NICU. Orthopedic consultation was sought due to bilateral upper limb swelling and foot deformity. There was no distal neurovascular deficit. On examination, abnormal mobility with crepitus was observed in both arms. X-ray revealed bilateral humerus fractures. There was also CTEV of left foot which was planned to be managed by Ponseti method after 1 week as the child was in NICU. Humerus fractures were splinted and limb was elevated on a folded towel. No additional analgesics were given. Fractures healed in slight angulation after 1 month, which eventually lead to remodeling in normal alignment.



X-Ray showing bilateral humerus shaft fracture.



Clinical photograph showing splinting of bilateral Arm.

Discussion:

Injuries occurring during birth are referred to as birth trauma or obstetrical injuries and they are associated with different etiological causes. Birth trauma occurs mostly following maneuvers during delivery, Caesarean sections, prolonged labor, and prematurity, macrosomia, breech presentation, shoulder dystocia and forcep-assisted delivery.[3,4] Although the clavicle has been reported as the commonest bone to fracture after birth trauma during Caesarean delivery, other long bone fractures such as femur, humerus and Monteggia fracture dislocation have been described.[5,6] Pathological fractures occur in infancy from a variety of causes like child abuse, osteogenesis imperfecta and rickets. Neonates with bilateral fractures of the humerus in LSCS operative delivery is a rare occurrence. Immediate evaluation, early identification of obstetric factors and timely orthopedic intervention during and after delivery will prevent the fractures and help in avoiding deformities.

It is necessary to examine the neonates for birth injuries, especially after difficult labor.

Our case report also emphasizes the fact that bilateral or multiple injuries may also occur, so examination of each and every limb is important.

The second point we felt which needs to be mentioned was the modality of treatment. These range from simple chest bandages and von Rosen splints to POP [7]. It is important to remember that the fracture union may look quite unsatisfactory initially, but 40-50 degree moulding can occur in two years time and parents may be reassured of the same [7].

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