

Orthopedic Trauma in Newborn Babies

Authors : Joanna Maj, Awais Hussain, Lyndsey Vu, Catherine Roxas

Abstract : Background: Bone injuries in babies are common conditions that arise during delivery. Fractures of the clavicle, humerus, femur, and skull are the most common neonatal bone injuries sustained from labor and delivery. During operative deliveries, zealous tractions, ineffective delivery techniques, improper uterine incision, and inadequate relaxation of the uterus can lead to bone fractures in the newborn. Neonatal anatomy is unique. Just as children are not mini-adults, newborns are not mini children. A newborn's anatomy and physiology are significantly different from a pediatric patient's. In this paper, we describe common orthopedic trauma in newborn babies. We provide a comprehensive overview of the different types of bone injuries in newborns. We hypothesize that the rate of bone fractures sustained at birth is higher in cases of operative deliveries. Methods: Relevant literature was selected by using the PubMed database. Search terms included orthopedic conditions in newborns, neonatal anatomy, and bone fractures in neonates during operative deliveries. Inclusion criteria included age, gender, race, type of bone injury and progression of bone injury. Exclusion criteria were limited in the medical history of cases reviewed and comorbidities. Results: This review finds that a clavicle fracture is the most common type of neonatal orthopedic injury sustained at birth in both operative and non-operative deliveries. We confirm the hypothesis that infants born via operative deliveries have a significantly higher rate of bone fractures than non-cesarean section deliveries. Conclusion: Newborn babies born via operative deliveries have a higher rate of bone fractures of the clavicle, humerus, and femur. A clavicle bone fracture in newborns is most common during emergency operative deliveries in new mothers. We conclude that infants born via an operative delivery sustained more bone injuries than infants born via non-cesarean section deliveries.

Keywords : clavicle fracture, humerus fracture, neonates, newborn orthopedics, orthopedic surgery, pediatrics, orthopedic trauma, orthopedic trauma during delivery, cesarean section, obstetrics, neonatal anatomy, neonatal fractures, operative deliveries, labor and delivery, bone injuries in neonates

Conference Title : ICSOT 2024 : International Conference on Sports Orthopaedics and Traumatology

Conference Location : Maldives, Maldives

Conference Dates : January 18-19, 2024