Humerus diaphysis fracture of a newborn during vaginal breech delivery with a scarred uterus

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Objective
Most of obstetricians are familiar with the fracture of the clavicula of a newborn during birth but a minority of them encounter the long bone fractures of the newborns. It is not traumatic only for the neonate, but also for the family and the obstetrician find it difficult to explain. Breech delivery either vaginal or by cesarean section remains the most important factor for the long bone fractures. The incidence of vaginal delivery after cesarean section have been reduced during the last years. There is limited data about vaginal breech delivery after cesarean section. To the best of our knowledge, there has not been reported humerus or any long bone fracture after vaginal breech delivery of a scarred uterus.

Methods
A multipara woman admitted with active labour and breech presentation in the 39th week of gestation. She had delivered her first baby vaginally and the second by cesarean section due to fetal distress. She requested to deliver vaginally. Her labor progressed spontaneously. Once the scapula was visible, the obstetrician rotated the infant 90° and gently sweep the left arm by pressing on the inner aspect of the arm but it failed. Then the obstetrician rotated the infant 180° in the reverse direction, and sweep the right arm out of the vagina. But the left arm was still in the uterus. It couldn’t be achived to rescue the left arm despite using all type of manoeuvres. The pulsation rate of the umbilical cord had dropped down so the staff had to use forceful traction to the left arm to rescue it. After the left humerus was broken, the head was quickly delivered. The first minute Apgar score was 5 and the 5 min Apgar score was 8. The male baby’s weigh was 3500 gr. The baby’s broken arm was fixed to the body with bandage and consulted with orthopedic consultant. Figure 1 Ultrasonographic appearance of the humerus fracture.

Results
Historically, long-bone fractures have been attributed to breech maneuvers at vaginal delivery, but because cesarean deliveries are becoming more popular and include breech maneuvers, the incidence of long-bone fractures may be increasing. The incidence of humerus fracture varies between 5-9 per 100, 000 deliveries in recent studies Caesarian section avoids the risk of head entrapment but long bone trauma can still occur. A clinical trial of vaginal breech delivery after cesarean section vs elective cesarean section is a challenging issue due to the increase in the decline rates for vaginal birth after cesarean section in the last years.

Conclusion
Long bone fractures are still one of the most feared complications of birth. Forced breech maneuvers at either vaginal or cesarean section delivery and emergency cesarean section can cause fetal injuries including long bone fractures. Fortunately humerus fractures heal with simple immobilization without long term deformity.