



G80 Spinal Cord Injury in Breech Labor

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After attending this presentation, attendees will understand how inadequate care of a breech delivery caused a perinatal death. The autopsy sheds light on how death occurred when extracting the fetal head and not by perinatal asphyxia.

This presentation will impact the forensic science community by highlighting how a multidisciplinary research involving the collaboration of academic peers and a group of forensic scientists was able to reconstruct the chain of events in an appropriate manner and how the factors that influenced this perinatal death were determined.

This is a case in which spinal cord injury occurred during a breech labor. According to a statement from the mother on the filed report, the mother stated that she felt her baby's body is coming out, but the physician failed to remove the head, so she thinks her baby's neck was broken. After spending a considerable amount of time, the full-term newborn was delivered without vital signs. The fetus's body was sent out for a forensic autopsy revealing the body of a female fetus of 3760g, 55cm height with cyanosis of the face. The internal examination anterior dissection revealed right parieto-temporal-occipital subgaleal hematoma, right parieto-occipital epidural hematoma, cerebral edema, and dislocation of a cervical vertebra. Posterior dissection performed up to the cervical region revealed dislocation of a cervical vertebra, spinal epidural hematoma from the first to the sixth cervical vertebra. After that, the spinal cord was lifted and samples were sent out for a histopathological study that revealed perimedullary spinal bleeding, brain and cerebellum micro stroke, and subarachnoid microhemorrhage. It is believed that this case of accidental death has never been reported.

This was unusual at that time because, initially, there were difficulties determining the cause of death due to the controversy that was stirred up among the physicians who attended the birth and the forensic autopsy pathologists. The medical autopsy revealed the findings from traumatic injury during breech delivery which caused the death of the full-term fetus in the vaginal canal, overflowing into the possible liability for lack of opportunity to perform a surgical procedure based on the absence of a pediatrician, arguments by the anesthesiologist, and the probable lack of expertise from the obstetrician/gynecologist specialists in the care of such deliveries. It is recommended that forensic investigators are familiar with this type of death as it is increasingly difficult to attend a breech delivery by technological advances in the institutions.

A case of perinatal death caused by spinal cord injury in the birth canal due to breech presentation associated with the delay in performing a cesarean section was reported. This case report describes, through a forensic autopsy with special dissections and review of medical records, the chain of events and pathogenetic mechanisms leading to the death of a fetus during labor. Medicolegal aspects of the case are discussed because when reviewing the existing literature, reports were found of the complications inherent to perinatal death due to breech presentation such as retention of the head, facial paralysis, and other injuries; but no reports on this type of death were found involving medical staff's negligence in the delay in performing a cesarean section.

Breech Delivery, Medical Liability, Spinal Epidural