

Forensic Science

MOTOR VEHICLE ACCIDENT - PRETERM DELIVERY

Case History

A 19-year old woman driving a compact car ran a red light and struck two other cars. She was 7¹/₂ months pregnant at the time and was wearing her lap belt. After impact, she noted a large amount of fluid per vagina. She was rushed to a nearby hospital where uterine contractions every five minutes were noted. Maternal injuries consisted only of a linear seatbelt contusion over the lower abdomen and a 4-cm laceration above the left eye. Twelve hours after admission, fetal monitoring indicated fetal distress and Caesarean section was performed. After delivery, the infant was flaccid and pale with no respiratory efforts. Resuscitation followed by transfusions were unsuccessful in maintaining a heart rate, and the infant was pronounced dead four hours after delivery.

At autopsy, the infant weight 2,456 GM (5¹/₂ lbs) and was normally formed. There were prominent periorbital contusions and a small amount of bloody fluid drained from the nose. Subscapular edema and focal subscapular hemorrhage over the left side of the frontal bone were present. The cranial vault was opened by cutting along the suture lines. A thin film of subdural hemorrhage was present over both cerebral hemispheres. The brain was soft with lacerations of both inferior frontal lobes. Blood clot escaped from the frontal lobe lacerations as the brain was removed from the cranial vault. The brain weight was 250 GM.

There were nearly symmetrical basilar skull fractures of the anterior fossa. Fracture lines extended just anterior to the sphenoid ridge into the ethmoid plate.

The lungs were airless, and sections of the lung sank in water and formalin. There were no congenital abnormalities.

Study Questions

1. What is the cause and manner of death?

Would the cause and manner of death be different if the child were stillborn?

3. Are the injuries a result of the seatbelt?

Should pregnant women wear seatbelts?

- **Answers to this case study should be on a separate sheet of paper!**

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