



G81 Head Injury Associated With Posterior Distraction of the Spine in a 4.5 Months Old Baby: Analysis of the Lesional Mechanisms

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After attending this presentation, attendees will understand the analysis of lesional mechanisms in association with lesions of head and spine in a young baby.

This case report concerns a 4.5-month-old boy measuring 62.5 cm and weighing 5.5 kg who was treated by an emergency team for a cardio-respiratory arrest at the parent's house. He was declared dead upon arrival at the hospital. The first explanation by the mother was that the child had been dropped and it suffered an accidental fall down the stairs. Quickly, the theory of an accident fall was denied by the two parents.

The postmortem CT scan of the entire body showed a right parietooccipital fracture with cerebral lesions. The medicolegal autopsy found a contusion with abrasion of parietooccipital region with a bending of head, a huge hematoma associated with bone defect, diastatic fracture and extradural and subdural hemorrhage, cerebral contusions and oedema. Skin ecchymosis (three ecchymosis in right temporal region and one ecchymosis in left frontal region) was also noted. The dissection of the spine by posterior incision showed a fracture of the right part of the neural arch of T12 with extra and subdural hemorrhage of the medullar cord associated with haematic infiltration of the posterior part of the intersomatic spaces extensive on 7 cm and a small ecchymosis of the anterior part of T12 body. Because of the initial story indicating the child fell, an opening of the joints of the four limbs was performed and no macroscopical lesion were noted. The knee and wrist joints were removed for anatomopathological analysis. There was no congestion of the internal organs.

The anatomopathological findings confirm the macroscopical description consistent with premortem lesions. They pointed out an infra-clinical fracture of the right knee and a haematic infiltration of the left radio-ulnar membranous.

The spine lesions were consistent with impact of the parieto-occipital region associated with a violent anterior flexion of the spine leading to posterior distraction lesion of the spine. The infra-clinic lesion of the right knee and the left wrist suggest a violent projection of the baby against a hard surface (like a wall) followed by a fall.

This case report shows the significance of carrying out a complete dissection of the spine and the spinal cord and performing an opening of the limb joints and a removal for anatomopathological analysis in cases of suspected of non accidental injury in a baby.

Child Abuse, Lesional Mechanisms, Head and Spine Injury