

Images in clinical medicine



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Ali Akhaddar, Mohammed Bahi

Corresponding author: Ali Akhaddar, Department of Neurosurgery, Avicenne Military Hospital of Marrakech, Marrakech, Morocco. akhaddar@hotmail.fr

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Airbag deployment induced paediatric cervical injury following a car accident

Ali Akhaddar^{1,2,&}, Mohammed Bahi³

¹Department of Neurosurgery, Avicenne Military Hospital of Marrakech, Marrakech, Morocco, ²Mohammed V University in Rabat, Rabat, Morocco, ³Department of Intensive Care Medicine, Avicenne Military Hospital of Marrakech, Marrakech, Morocco

&Corresponding author

Ali Akhaddar, Department of Neurosurgery, Avicenne Military Hospital of Marrakech, Marrakech, Morocco

Image in medicine

A 12-year-old girl was involved in a 50 km/h motor vehicle accident that resulted in the deployment of both airbags. She was a front seat passenger well restrained by a three-point seatbelt. The driver (his father) was uninjured but the patient complained of a stiff and painful neck. On arrival in the emergency room, she was alert and hemodynamically stable. Physical examination showed swelling and excoriation of the skin over the anterior cervical area and mandibular region (A). Neurological examination results were normal except for torticollis and neck pain. Cervical spine radiography showed no abnormality except the loss of cervical lordosis. She was admitted for observation and was discharged ten hours later

with a cervical collar and symptomatic drugs. At 15-day follow-up visit, the patient had no neck pain, and the neurological examination finding was normal. Airbags drastically reduce both morbidity and mortality from crashes, but a wide range of injuries has been reported as a result of direct contact of hot gas with facial skin and energy transmitted directly from the airbag system to the child's head and neck. This device may cause ocular and facial injuries, abdomen and chest

trauma, upper extremity injuries, and cervical spine lesions especially in pediatric populations. All children below 12 years of age or less than 40 kg of weight must not occupy the front seat passenger. Airbags may induce injuries that vary from minor to fatalities whatever the impact velocities. Practitioners should be aware about lesions induced by airbag deployment.



Figure 1: airbag deployment induced pediatric cervical injury following a car accident