Traumatic bilateral carotid artery dissection following severe blunt trauma: a case report on the difficulties in diagnosis and therapy of an often overlooked life-threatening injury.

Abstract:

Traumatic carotid artery dissections are very rare, often overlooked and life-threatening injuries. Diagnosis and treatment are difficult especially in multiple injured patients. We report on a 28-year-old female major trauma patient (injury severity score, ISS 50) who was involved in a motor vehicle accident. She was primarily transferred to a level II trauma center. After initial assessment and operative management, an anisocoria was diagnosed on the intensive care unit. Subsequent CT angiography and extracranial duplex sonography revealed a bilateral internal carotid artery dissection. The patient was transferred to our level I trauma center where conservative treatment with high-dose heparin therapy was started at day two after trauma. Outcome after 6 months was very good. Besides presenting the case and outcome of this patient, the article discusses the diagnostic and therapeutic management of this extremely rare and often overlooked dangerous injury. To avoid overlooking carotid artery dissections, CT angiography of the neck region should be generously included into the initial multislice CT whole-body scan, when the injury results from an according trauma. For the best outcome, sites of hemorrhage should be abolished quickly and the anticoagulative therapy should be
initiated as soon as possible. Interdisciplinary treatment of trauma surgeons and neurologists is crucial.