1.4. A Momentary Documentation of a Cervical Vertebrae Fracture

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Introduction

Countless articles with experimental, clinical-roentgenographic and autopsy findings have been published dealing with the mechanism of injuries caused by whiplash and snapping of the cervical spine [1, 5, 9, 11, 17, 19]. They range from mild distortions with no morphological signs of injury to fatal lesions with complete rupture of the spinal cord [16, 20].

In spite of the abundancy of literature on this theme, we feel that this short article is of special interest because it is accompanied by a photo documentation of the chronological injury process and because of the slow tempo of the event it allows an exact reconstruction of the pathogenesis.

Case History

While rough-housing in the party-den at a friend’s house, a strong, healthy 18 year old male (M.H.) suffered a depressed fracture on the anterior edge of the 7th cervical vertebra with rupture of the posterior articular process and subluxation of the right vertebral joint (Fig. 1).

M.H. had a muscle spasm causing deviation of the cervical vertebrae and complained of ulnar dysaesthesia in both forearms and hands more severe on the right side. In addition, his ability to make a fist with his right hand was weakened. Later it was found that the exact moment of injury had been photographed.

In Fig. 2 one can see the process taking place. The person standing behind M.H. executed a maximal flexion of the cervical spine. M.H. said he first attempted a muscular opposition to this force but then his strength gave out. He then heard a cracking sound in his neck, followed by a ripping feeling in the anterior part of his throat accompanied by an electric “shock” in both arms.
Fig. 1. X-ray showing fracture of the anterior edge of C7. Subluxation C6/7

Fig. 2. Documentation of the injury