

in chronic post injury stage. It presents with significant rise in blood pressure (BP) accompanied by several symptoms. Once the inciting stimulus is removed, reflex hypertension resolves and patient becomes asymptomatic. Unusually, AD episodes have also been reported during the acute phase suggesting remaining reflex activity of the cord (early AD). Furthermore literature has described cases that BP elevation is a silent finding and AD present without associated symptoms (silent AD). Finally published cases of severe AD with a tendency of progressive worsening even when the trigger is removed (malignant AD) raise the concern of potential life threatening complications. We aim to present these different clinical AD presentations and highlight the importance of early recognition and management in the cardiovascular function.

Further reading

Silver JR. Early AD. A review. *Spinal Cord* 2000.

Huang YH. Blood pressure and age associated with silent AD during urodynamic examinations in patients with spinal cord injury. *Spinal Cord* 2012.

Elliott S, Krassioukov A. Malignant AD in spinal cord injured men. *Spinal Cord* 2006.

Teasell R. Cardiovascular consequences of loss of supraspinal control of the sympathetic nervous system after spinal cord injury. *Arch Phys Med Rehabil* 2000.

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Autonomic dysreflexia: Preventative et therapeutic strategies

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Autonomic dysreflexia (AD) is a massive sympathetic discharge triggered by a stimulus below the level of injury, commonly a bladder or bowel irritation. The prevention of AD relies on the treatment of detrusor overactivity (anticholinergics, botulinum toxin, sphincterotomy). Invasive procedures of the sacral area (anoscopy, cystoscopy, anorectal digitation, vaginal digitation. . .) need the use of topical agents (lidocaine) in order to decrease noxious afferent stimulations. For more invasive procedures or general surgery, loco-regional (epidural or spinal) or general anesthesia prevent the risk of AD. In the same way, for vaginal delivery in pregnant women, epidural anesthesia prevent the risk of AD. The initial acute management of an episode of AD includes non-pharmacological intervention: positioning the patient upright, loosening tight clothing or constrictive devices, and eliminating any precipitating stimulus which is related in 85% of the case to bladder distension or fecal impaction. The use of antihypertensive drugs in the presence of sustained elevated blood pressure (≥ 150 mmHg) is supported by Level 1 (prazosin) and Level 2 (Nifedipine) evidence.

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Workshop: Autonomic dysreflexia in spinal cord injury, "A Need for Educational Programs and for Autonomic Dysreflexia Wallet Card"

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Keywords: Spinal cord injury; Autonomic dysreflexia; Autonomic dysreflexia emergency card; Tetraplegia

Autonomic dysreflexia (AD) is a potentially life-threatening acute condition post spinal cord injury (SCI). During the initial rehabilitation, SCI patients must be trained in new ways on activities of daily living. Under such pressure, patients are not adequately informed about AD. Health personnel's knowledge is severely lacking in this area too. This fact has been documented in the literature. Future strategies raising awareness in AD are necessary.

An AD emergency medical card is one of them explaining AD to healthcare providers. Patients susceptible to AD should carry on them this card providing useful information of causes and acute management of AD. There are many

a convenient shape, like a wallet card, to be easily carried, should have some personal information, should be official and printed by the PRM department, which is responsible for the accuracy of personalized information: level of injury, baseline blood pressure, previous AD episodes, etc. A universal form of the AD card translated in different languages could be more recognizable. In conclusion, it is vital for SCI patients to receive ongoing education about AD and health personnel of Emergency Department awareness in AD.

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Surgical management at the acute phase of spinal cord injury: History and state of the art

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Although the first descriptions of traumatic spinal cord injury dated from antiquity, their prognosis has truly evolved after Second World War. In this period, appeared the first spinal osteosynthesis devices and few years more to have reliable systems with Harrington and then Roy-Camille. Meanwhile, a better knowledge of central nervous system lesions leads us to an earlier surgical management of such injuries.

Authors proposed a systematic review of recent consensus concerning surgical management at the acute phase of spinal cord injury and its interest in the further medical management. Great debates remain open on these surgical attitudes but also on the use of so-called neuroprotective pharmacological agents.

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Acute care management in spinal cord injury and the influence on lifespan

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Keywords: Spinal cord injury; Quality of life; Lifespan

Hundred years ago, paraplegia mostly/always led to death. The main causes were pneumonia, septicemia caused by urinary tract infections and pressure sores. The development of specialised treatment for spinal cord, antibiotics and the operative intervention to achieve spinal stability have improved the prognosis of the patients regarding lifespan and quality of life.

Nowadays, expectation of life in paraplegics does not differ significantly compared to the standard population. Even the treatment of high tetraplegic ventilator dependent patients shows a significant decrease concerning complications and deaths. This is caused by the development of medical techniques and the recruitment of highly trained staff. The level of the lesion always determines the clinical outcome. The higher the level of the lesion the more important is treatment in a specialised centre. Studies on mortality have shown that urinary tract complications and renal failure are no longer the leading causes of death in SCI subjects. Currently, the leading causes of death are pneumonia, septicemia, pulmonary emboli and suicide. Frequencies of these complications vary considerably between tetraplegics and paraplegics. Overall, the risk of dying after lung diseases is considered to be higher in tetraplegic subjects, whereas paraplegics have a higher risk of dying from cardiovascular diseases.

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Tetraplegia incidence in Normandy

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