

Crutchfield tong

Instrument that is attached to the skull to hyperextend the head and neck of patients with fractured cervical vertebrae for the purpose of immobilizing and aligning the vertebrae.

The tips of the tongs are inserted into small burr holes drilled in each parietal region of the skull; the surrounding skin is sutured and covered with a collodion dressing. A rope tied to the center of the tongs passes over a pulley at the head of the bed and is attached to a weight of 10 to 20 pounds, which hangs freely.

The insertion sites of the tongs are inspected and cleaned every 1 to 2 hours; any formed crusts are removed with hydrogen peroxide or normal saline twice a day or as required. The patient is turned and assisted in deep breathing every other hour and is given scalp and skin care every 2 to 4 hours. The bed linen is kept dry and smooth, and back rubs are administered to prevent pressure ulcers. Passive range-of-motion exercises of all extremities are performed when prescribed. Sandbags may be used to prevent the patient from sliding to the head of the bed, and the call bell is placed within easy reach. The immobilized patient receives food that is easy to swallow and is fed with care to prevent aspiration. A suction apparatus is kept at the bedside as an emergency measure. The nurse maintains the patient's body alignment and checks that the weights are in the prescribed amount and are hanging freely. outcome criteria A patient may be immobilized by Crutchfield tongs for weeks before surgery is performed. During an operation on the cervical spine and spinal cord, the tongs may be left in place for proper alignment.

Complications

The case of a 4-year-old girl who developed bilateral brain abscesses complicating skull traction is reported. Crutchfield tongs were used to reduce a fracture dislocation at C2-3. Presenting symptoms consisted of headaches and focal seizures. Surgical treatment and antibiotics using serial CT led to a satisfactory outcome. This is the first reported case of this complication in a child ¹⁾

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Martinez-Lage JF, Perez-Espejo MA, Masegosa J, Poza M. Bilateral brain abscesses complicating the use of Crutchfield tongs. Childs Nerv Syst. 1986;2(4):208-10. PubMed PMID: 3779684.

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