

## Clinical Image

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# Decorticate posturing in a 9-year-old boy: An interesting clinical image

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### Image in clinical medicine

#### Short history

In this case 8 year old boy presented with a complaint of fever for 4 days 8-10 episodes of seizure in 2 days, and semi-conscious. The parents brought the patient in with these complaints, during the examination the physician noticed the flexion at the elbow and lower extremity in extension and hypotonia in all limbs.

#### Differential diagnosis

**Decerebrate posture:** In decerebrate posture, there will be extensor posture with internal rotation of the upper and power limbs [1,2]. This shows that the vestibulospinal tract is unharmed and that the damage caused by the injury has not

spread far beyond it. Despite this excruciating discomfort, the patient's prognosis is very bad. This sign foretells the commencement of tonsillar herniation, respiratory paralysis, and finally the patient's death.

**Lazarus reflex in brain death patient:** With the upper limbs crossed over the chest and in a contracted position, the posture will resemble that of an ancient mummy [3,4]. However, this presentation carries a small risk of brainstem death. Brainstem areflexia and a positive apnea test are the identifying features of patients with brain stem death as opposed to those with decorticate posture.

#### Discussion

In neurology and neurosurgical patients whose degenerative processes have already produced intracranial hypertension and



**Figure 1:**

herniation syndrome, a certain pattern of behavior known as decorticate posture is seen. There will be flexor posture, upper limb internal rotation, and lower limb extensor posture. The painful stimulation should only be performed over the supra-eyebrow region or on other dermatomal distributions of cranial nerves to prevent the confounding bias from reaction evident from the spinal reflexes [5,6]. Internal rotation can be distinguished from the typical flexor response to pain thanks to its posture.

It is advisable to recognize decorticate posture in neurological and neurosurgical patients as soon as possible in order to initiate early corrective therapies to reverse the herniation syndrome and prevent the patient from acquiring decorticate posture and, eventually, tonsillar herniation [7]. More than 80% of patients who arrive with decorticate posture and fixed dilated pupils die [8]. It is essential to recognize the early indications of delayed herniation syndrome and select emergency management techniques, such as giving mannitol or hypertonic saline, setting up an external ventricular drain, or performing a decompressive hemicraniectomy, in order to prevent tonsillar herniation.

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