Clinical commentary with video sequences

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## Massive rhythmic axial myoclonus in post-anoxic coma

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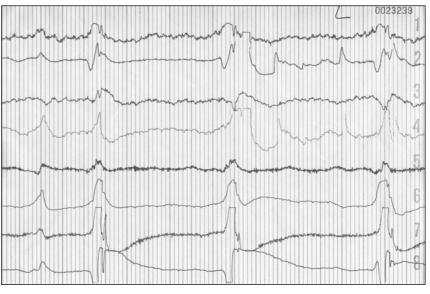
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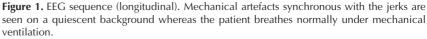
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**ABSTRACT** – We present the video of a patient who presented massive and impressive rhythmic axial sudden flexion of the neck and the upper part of the trunk in post anoxic coma. [*Published with video sequences*]

Key words: coma, prognosis, post-anoxic, myoclonus, critical care

A 63-year-old man was transferred to the intensive care unit after cardiorespiratory arrest. On arrival, his Glasgow Coma Scale score was 3. One day after admission, he presented massive and impressive rhythmic, axial, sudden flexion of the neck and the upper part of the trunk, every 10-16 seconds (*see video sequence*). The EEG showed only mechanical artefacts synchronous with the jerks (Thomke *et al.* 2005) (*figure 1*). Intra-







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Medical Intensive Care Unit, Assistance Publique-Hopitaux de Paris, Saint-Louis University Hospital, 1 Avenue Claude Vellefaux, 75010 Paris <stlegriel@invivo.edu> venous midazolam injection was ineffective. Finally, the patient died from the initial anoxic-ischemic insult. Massive, post-anoxic, rhythmic, axial myoclonus results from widespread ischemic damage to the CNS (Young *et al.* 1990). Gasping, the main differential clinical diagnosis, typically manifests as an abrupt inspiratory phase that occurs preterminally during cardiac arrest (Manole and Hickey 2006). Such jerking movements should not be attributed to bucking the vent, but recognized as myoclonus, which usually implies a poor prognosis (Wijdicks *et al.* 2006).

## Legend for video sequence

Video sequence demonstrates a patient with massive postanoxic rhythmic axial sudden flexion of the neck and the upper part of the trunk, occurring every 10-16 seconds, that should not be attributed to bucking the vent.

## References

Manole MD, Hickey RW. Preterminal gasping and effects on the cardiac function. *Crit Care Med* 2006; 34: S438-S441.

Thomke F, Marx JJ, Sauer O, *et al.* Observations on comatose survivors of cardiopulmonary resuscitation with generalized myoclonus. *BMC Neurol* 2005; 5: 14.

Wijdicks EF, Hijdra A, Young GB, *et al.* Practice parameter: prediction of outcome in comatose survivors after cardiopulmonary resuscitation (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology* 2006; 67: 203-10.

Young GB, Gilbert JJ, Zochodne DW. The significance of myoclonic status epilepticus in postanoxic coma. *Neurology* 1990; 40: 1843-8.