

CO0343

### Early in-bed tilting in neurological intensive care unit: Feasibility and interest



Sylvain Fazilleau

CHU de Montpellier, MPR Gui-de-Chauliac, Montpellier, France

E-mail address: [fazilleausylvain@gmail.com](mailto:fazilleausylvain@gmail.com)

**Objective** Early verticalization in ICU is recommended [1] but not documented in brain-damaged people. Using a verticalization table involves risks and stresses in this context. The main objective was to determine the safety and feasibility of in-bed verticalization in neurological intensive care. Secondary objectives were to study the immediate, hemodynamic, and respiratory impacts, as well as the effects on awakening.

**Material/patients and methods** Observational study in a neurological intensive care unit. All brain-damaged patients were included including sedated and ventilated. Verticalization was started according to a protocol and after validation by the ICU team and physiatrists. Patients were in-bed verticalized at 40° for 30 minutes, 5 days out of 7, after clamping of the external ventricular shunt and under human supervision and continuous monitoring. The sessions were interrupted according to predefined criteria of poor tolerance.

**Results** To date, 17 patients were included in 50 days (mean age: 62 years, 75% men). One hundred and eight verticalization sessions were performed, an average of 6.4 sessions per patient. Sixty percent of service patients could be verticalized. The causes of non-realization of verticalisations were neurological contraindications (56%), hemodynamic (17%), respiratory (5%), non-indication (21%). The stop was necessary in 7% of sessions that to say 41% of patients. The causes were restlessness (37%), poor hemodynamic tolerance (25%), respiratory (13%), the organizational difficulties (25%). The before-during difference of average blood pressure was 3%, 1.5 bpm heart rate, 0.17/min for breathing frequency. On a scale of simplified WHIM, the awakening status improved in 36% of the sessions.

**Discussion - conclusion** The in-bed verticalization for brain-damaged patients in ICU can be very early, with a low rate of reversible side effects. It requires a good definition of indications and contraindications. Some of the patients improve their wakefulness status during the verticalization. The data collection will be continued for a 6 months period.

**Keywords** Early rehabilitation; Neurological ICU; Verticalization; Brain injury

**Disclosure of interest** The author has not supplied their declaration of competing interest.

#### Reference

[1] Roeseler, et al. Support for early mobilization in the ICU. In: SRLP recommendations; 2013.

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CO0344

### Tracheal lesions after tracheotomy in patients with acquired brain injury: Incidence, associated factors and impact on rehabilitation



Anne-Lyse Jaquot<sup>1,\*</sup>, Emmanuel Vega<sup>2</sup>, Xavier Molders<sup>1</sup>, Walter Daveluy<sup>1</sup>, François Kopciuch<sup>1</sup>, Anne Benoit<sup>1</sup>, Etienne Allart<sup>1</sup>

<sup>1</sup> CHRU de Lille, rééducation neurologique cérébrolésion, Lille cedex, France

<sup>2</sup> CHRU de Lille, réanimation neurochirurgicale, Lille, France

\* Corresponding author.

**Objective** Management of tracheotomy is a key point of the coma arousal phase. Tracheal lesions can interfere with the decannulation of the patient. The objectives of our study were to determine

the incidence of post-tracheotomy tracheal lesions in patients with brain injury, identify their associated factors and to specify their impact on rehabilitation.

**Material/patients and methods** We retrospectively included brain-injured patients hospitalized in the neurosurgical intensive care unit then in the coma arousal unit of the Lille university hospital between January 2012 and December 2014. All patients had a tracheotomy and benefited from an endoscopy prior and/or after decannulation. Data from intensive care unit and rehabilitation hospitalizations were collected to analyze factors associated with tracheal lesions and the impact on rehabilitation.

**Results** Fifty-six patients were included. Thirty (53.6%) had a tracheal lesion, which was most of the time asymptomatic. The duration of stay in intensive care unit was significantly longer in the group with tracheal lesion (medians and interquartile ranges respectively: 54 [29] vs 42 [16] days,  $P=0.012$ ). Decannulation tended to take place later for patients presenting with a tracheal lesion (74 [60] vs 40 [69] days after the tracheotomy). The hospitalization in neurorehabilitation unit was also significantly longer for patients with tracheal lesion (181 [182] vs 149 [248] days). The refeeding process tended to start later in patients presenting with a tracheal lesion (71 [78.5] days) than in the group without tracheal lesion (61.5 [68]), but the return to a normal texture occurred at the same time.

**Discussion - conclusion** Tracheal lesions after tracheotomy are common in patients at the coma arousal phase after an acquired brain lesion. They are often asymptomatic at this stage, and seem to delay decannulation and refeeding processes.

**Keywords** Coma arousal; Tracheal stenosis; Tracheal lesion; Stroke; Traumatic brain injury

**Disclosure of interest** The authors declare that they have no competing interest.

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## Posters

PO015

### Adult anti-NMDA receptor encephalitis: Which physical and rehabilitation medicine program? Case reports and literature review



Jean-Marie Beis, Morgane Renard\*

Centre readapt grands handicapes, Lay-Saint-Christophe, France

\* Corresponding author.

E-mail address: [Morganerenard5154@gmail.com](mailto:Morganerenard5154@gmail.com) (M. Renard)

**Objective** Anti-NMDA (N-Methyl-D-Aspartate) receptor encephalitis (NMDA-E) is the second cause of autoimmune encephalitis in adults. The objectives of this presentation are to describe the main clinical elements and rehabilitation specificities.

**Observations** Three female inpatients (mean age: 25) present with moderate to severe behavioural and/or psychiatric disorders, seizures and presence of associated tumor in one patient. Presence of anti-NMDA antibodies in the cerebrospinal liquid confirmed diagnosis. Rehabilitation was focused on cognitive and behavioural remediation, dysphagia rehabilitation (2 patients) and on functional mobility improvement and regular psychiatric assessment. Functional outcome was satisfactory. Return to previous activities (high school and college) was obtained for 2 cases, respectively at 22 and 6 months of evolution.

**Discussion - conclusion** Four cases with description of rehabilitation procedures are found in literature: 3 women (mean age: