Sudden death in a patient with a third ventricle colloid cyst

Morte súbita em paciente com cisto coloide de terceiro ventrículo

Danilo Silva1,2, Georgios Matis1, Olga Chrysou3, Eduardo V. de Carvalho Junior2, Leonardo Costa2, Matheus Kitamura2, Theodossios Birbilis3, Hildo Azevedo Filho2

1 Neurosurgical Department, Weill Cornell Medical College, New York NY, USA; 2 Neurosurgical Department, Restauração Hospital, Recife PE, Brazil; 3 Neurosurgical Department, Democritus University of Thrace Medical School, Alexandroupolis, Greece.

Correspondence: Danilo Silva; Weill Cornell Medical College, New York NY, USA; Department of Neurological Surgery; Skull base fellow; 124 west 60th street Apt 37L; New York NY – USA; E-mail: daniloncr@gmail.com

Conflict of interest: There is no conflict of interest to declare.

Received 21 October 2011; Received in final form 09 November 2011; Accepted 16 November 2011

A 26-year-old female was brought to the Emergency Department for experiencing a sudden and progressive worsening of cephalalgia after sexual intercourse. She eventually became drowsy and not responsive to verbal commands. The patient had a medical history of third ventricle colloid cyst (CC), diagnosed in another institution, and had suffered intermittent headaches for two years.

The neurological examination revealed a patient in profound coma with a Glasgow Coma Scale score (GCS) of 3. Her pupils were bilaterally dilated, with no response to light stimulus. After emergency protocol procedures, the patient was admitted to the Intensive Care Unit (ICU) and a head computed tomography (CT) was obtained. The CT demonstrated hydrocephalus and a hyperdense lesion inside the third ventricle compatible with a previous known third ventricle CC (Fig 1 and 2). Due to the poor neurological status, no treatment was recommended and the patient died two hours after admission. Institutional ethics committee approval was obtained in order to proceed with this case report.

This is one of the very few cases of sudden death related to a third ventricle CC reported in the literature1-4. CCs are regarded as benign lesions1, accounting for 0.5 to 2% of intracranial tumours2. The cause of death is believed to be the result of acute cyst swelling due to an intralesional haemorrhage3,4. Its incidence varies from 1 to 3/10^6 person-years5,6. Estimates of the risk of acute deterioration in patients harboring these cysts vary from 6 to 45% with episodic headache and compromised consciousness, being the most common symptom and sign, respectively5. This leads to cerebral herniation as a result of ventricular obstruction after blockage of Monro’s foramen1,5,6. Since cyst size, duration of symptoms, and presence of hydrocephalus cannot reliably predict the risk of sudden neurological deterioration5, surgical management is favored, even when the relationship between the CC and headache is unclear6a.

Fig 1. Computed tomography scan demonstrating increased intracranial pressure due to non-communicating hydrocephalus.

Fig 2. Computed tomography scan illustrating a lesion compatible with a third ventricle colloid cyst.

References