

A Cyst in Third Ventricle Leading to Sudden Death – A Case Report

¹Dr Vijay Kumar AG, ²Dr M G Shivaramu, ³Dr Kumar U, ⁴Dr Satish NT

¹Assistant Professor, ²Professor and Principal, ³Associate Professor, ⁴Associate Professor

Department of Forensic Medicine and Toxicology, Adichunchanagiri Institute of Medical Sciences,

Bg Nagara, Nagamangala Taluk, Mandya District, Karnataka, India

***Corresponding author**

Dr Vijay Kumar A G

Email: vijay.fmt@rediffmail.com

Abstract: Colloid cysts of the third ventricle are a benign epithelial lined cyst with characteristic imaging features. Although usually asymptomatic, they can present with acute and profound hydrocephalus. Colloid cysts account for ~2% (range 0.5-3%) of primary brain tumours and 15-20% of intraventricular masses. They are located at the foramen of Monro in 99% of cases. In case report 24 year old gentle man well built and nourished, engineer in profession, was doing good in his job. One day he had a mild head ache, showed to general practitioner, he advised pain killer and then it went off. Then in future he was suffered with same kind of headache in a repeated manner. Then he consulted physician, he gave some medications and advised ophthalmologist review. But unfortunately he couldn't identify any sight problem. In conclusion Patients with third ventricular colloid cysts become symptomatic when the tumor enlarges rapidly, causing CSF obstruction, ventriculomegaly, and increased intracranial pressure. Some cysts enlarge more gradually, however, allowing the patient to accommodate the enlarging mass without disruption of CSF flow, and the patient remains asymptomatic.

Keywords: Cyst, Ventricle, Sudden Death.

INTERODUCTION:

Colloid cysts of the third ventricle are a benign epithelial lined cyst with characteristic imaging features. Although usually asymptomatic, they can present with acute and profound hydrocephalus.

Colloid cysts account for ~2% (range 0.5-3%) of primary brain tumours and 15-20% of intraventricular masses. They are located at the foramen of Monro in 99% of cases [1, 2].

The majority of cases are identified in early middle age (30-40 years of age) although 8% of cases may be diagnosed in paediatric age [3].

In the vast majority of cases, colloid cysts are found incidentally and are asymptomatic. Their position in the roof of the third ventricle immediately adjacent to foramen of Monro can on occasion result in sudden obstructive hydrocephalus and can present with a thunderclap headache or unconscious collapse. The headaches tend to be positional, and patients may learn how to relieve symptoms.

Colloid cysts originate from abnormal folding of the primitive neuro-epithelium (the paraphysis elements)²⁻³. They contain mucin, old blood (haemosiderin), cholesterol, and various ions, accounting for the wide range of imaging appearance.

These cysts are lined by a single layer of columnar epithelium which produces mucin, which appears as a thick yellow green fluid when the cyst is open.

CASE REPORT:

A 24 year old gentle man well built and nourished, engineer in profession, was doing good in his job. One day he had a mild head ache for that he showed to general practitioner, doctor advised pain killer and then it went off.

Then in future he was suffered with same kind of headache in a repeated manner. Then he consulted physician, he gave some medications and advised ophthalmologist review. But unfortunately he couldn't identify any sight problem...then he had repeated vomiting with headache, for that he consulted ENT surgeon, he advised CT SCAN HEAD, but patient refused to undergo scanning, but continued with pain killers...one day suddenly his health got completely deteriorated with severe headache, multiple episodes of vomiting, unconsciousness leading to sudden death.

POSTMORTEM FINDINGS:

Deceased body was taken to Post-Mortem at Department Of Forensic Medicine & Toxicolgy, Adichunchanagiri Institute of Medical Sciences, BG nagara, Nagamangala taluk, Mandya district.

On opening the chest cavity, heart and pericardium was intact, with normal weight, no signs of gross blood clot in the coronaries. Both lungs were intact and cut section shows severe congestion indicating asphyxia.

On opening the abdomen cavity, all the organs were intact and weighing normally, no signs of hemo and pneumo-peritoneum. No evidence of organ injuries.

Blood and viscera were forwarded to Forensic Science Laboratory, at Bangalore, but it came negative for any kind of poison.

On opening the skull cavity gross cerebral oedema was found, with no signs of intracerebral and intracranial hemorrhages. Then the brain was preserved in formalin and forwarded to histo-pathological examination at NIMHANS hospital, Bangalore.

The report was shocking- it states a cyst at third ventricle leading to blockage of Cerebro-spinal-fluid leading to cerebral oedema (hydrocephalus) and brain stem compression, finally which has lead to death.

CONCLUSION:

Patients with third ventricular colloid cysts become symptomatic when the tumor enlarges rapidly, causing CSF obstruction, ventriculomegaly, and increased intracranial pressure. Some cysts enlarge more gradually, however, allowing the patient to accommodate the enlarging mass without disruption of CSF flow, and the patient remains asymptomatic. The main management options are; observation, craniotomy for microsurgical resection, neuro endoscopic removal, stereotactic drainage, and cerebrospinal fluid diversion with bilateral ventriculo peritoneal shunting placement.

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