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Blurry Vision as the Sole Initial Presentation of a Right Middle Cranial Fossa Arachnoid Cyst (Galassi Type II): A Case Report

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1. Abstract

1.1. Background

Arachnoid cysts are benign, CSF-filled lesions that are frequently incidental but can become symptomatic depending on size, location, and mass effect [1,2].

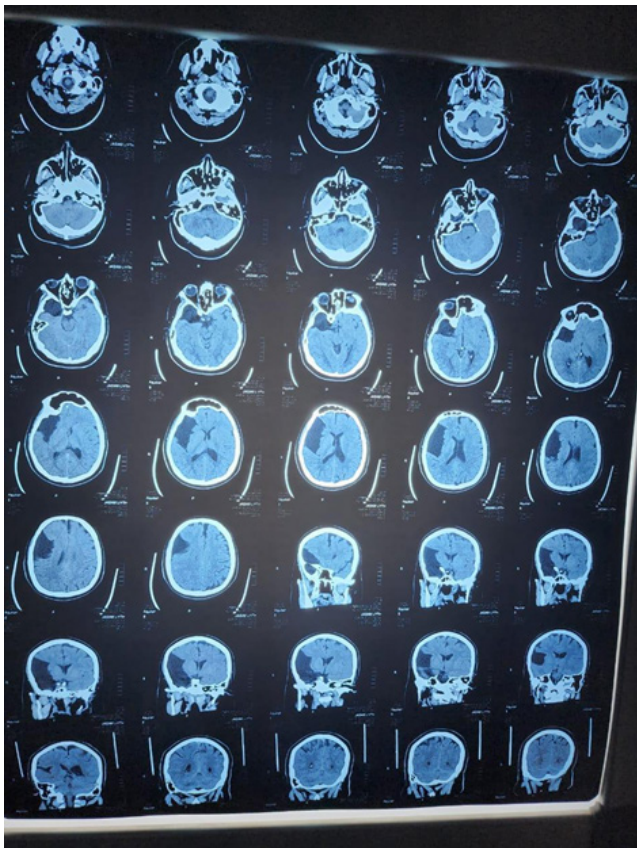

Figure 1: Non-contrast CT scan (photo-of-film).

1.2. Case Presentation

A 29-year-old male presented with isolated blurry vision. Hours later, he developed a generalized tonic–clonic seizure. Non-contrast head CT showed a hypodense extra-axial lesion consistent with a right middle cranial fossa arachnoid cyst, Galassi type II (Figure 1) [3,4]. He was stabilized with antiepileptics and transferred to a tertiary neurosurgical center, where definitive surgical resection was performed.

1.3. Conclusion

Isolated visual disturbance may herald a symptomatic arachnoid cyst. Prompt neuroimaging and escalation to neurosurgery are crucial.

2. Introduction

Arachnoid cysts account for ~1% of intracranial space-occupying lesions and are often detected incidentally [1]. Symptomatic middle cranial fossa cysts may present with headache, seizures, or focal deficits; isolated visual symptoms are uncommon [2]. The Galassi classification stratifies middle fossa cysts into types I–III by size, extent, and communication with the subarachnoid space [4].

2.1. Patient Information

A 29-year-old male presented to Alnuman Hospital with sudden-onset blurry vision, more pronounced in daylight. He denied headache, nausea, vomiting, limb weakness, sensory changes, diplopia, or photophobia. No prior head trauma or epilepsy; past medical history unremarkable.

2.2. Clinical Findings

- General: Alert, oriented ×3; temperature 36.8°C, BP 120/75 mmHg, HR 82 bpm, RR 16/min; no meningeal signs.

- Ophthalmic: Visual acuity 6/9 OU without correction; normal color vision; pupils equal/reactive, no RAPD; extraocular movements full and painless; visual fields full on confrontation; fundi normal without papilledema or hemorrhage.

- Cranial Nerves: II–XII intact. Sense of smell preserved, visual fields full, normal ocular motility, intact facial sensation and movements, hearing intact bilaterally, symmetrical palate elevation, normal shoulder shrug and tongue midline.

- Motor: Normal tone and bulk, power 5/5 in all major muscle groups, reflexes +2 and symmetrical, plantar responses flexor bilaterally.

- Sensory: Intact for light touch, pinprick, vibration, and proprioception throughout.

- Coordination: Finger–nose and heel–shin normal, no dysmetria or intention tremor.

- Gait and Balance: Normal gait, able to tandem walk, negative Romberg test.

2.3. Timeline

Day 1: Blurry vision → ED; partial relief with analgesics.

Day 2: Recurrence of blurry vision → admission; hours later generalized tonic–clonic

seizure → acute stabilization.

Day 2–3: Non-contrast CT confirmed a right middle fossa arachnoid cyst (Galassi II) →

transfer to Baghdad neurosurgery. Day 4: Definitive surgical resection.

Follow-up: Uneventful postoperative recovery; outpatient surveillance arranged.

2.4. Diagnostic Assessment

Laboratory: CBC, electrolytes, renal and liver function were within normal limits.

Imaging: Non-contrast CT head demonstrated a well-defined hypodense extra-axial lesion in the right middle cranial fossa with mild mass effect on the right temporal lobe and minimal effacement of the right lateral ventricle. No midline shift or hydrocephalus (Figure 1). Based on morphology and extent, the lesion was categorized as Galassi type II (extends along the Sylvian fissure with displacement of the temporal lobe and partial communication with the subarachnoid space) [4].

3. EEG: Post-Ictal Study without Epileptiform Discharges.

3.1. Therapeutic Intervention

Acute management: The seizure was aborted with intravenous benzodiazepines followed by antiepileptic loading. The patient was stabilized and monitored.

Definitive management: He was referred to the neurosurgical service in Baghdad for urgent evaluation. Surgical resection of the cyst was performed as the definitive treatment, given symptomatic presentation and imaging features consistent with Galassi II.

3.2. Follow-Up and Outcomes

Postoperatively, there were no further seizures. Visual complaints improved, and the patient was discharged with outpatient neurosurgical follow-up and antiepileptic therapy taper plan.

4. Discussion

Middle fossa arachnoid cysts are commonly classified using the Galassi system into types I– III based on size, displacement of adjacent brain, and CSF communication [4]. Our patient's cyst was consistent with Galassi type II, which typically extends along the Sylvian fissure with displacement of the temporal lobe and may communicate slowly with the subarachnoid space. Symptomatic type II/III cysts are more likely to require intervention. Surgical options include fenestration (open or endoscopic), cystoperitoneal shunting, or resection, with approach tailored to cyst anatomy and institutional experience [5–7]. This case highlights that isolated visual symptoms can precede seizure activity, and timely neurosurgical referral is warranted when clinical deterioration or mass effect is evident.

Patient Perspective The patient was relieved to receive a clear diagnosis and agreed with the plan for surgical management and follow-up.

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