

CASE STUDY: MR. CAT MARSH

Surgical resection of an
intracranial meningioma



Patient Background:

- **Patient:** Mr. Cat Marsh
- **Species/breed:** Feline, DSH
- **Referring DVM:** Dr. Repeta, The Cat Hospital at Park Street
- **Neurology Hospital:** SCAN Clearwater
- **Neurologist:** Jenna Lind, DVM, DACVIM (Neurology)

Presenting Complaint

Date of presentation: April 21, 2025

- Behavioral changes (vocalization, visual deficits, staring at walls) noted in the beginning of fall 2024 that had progressed since their onset. Extra-cranial work-up (blood work, radiographs, AUS) were unremarkable.

Initial Treatment Prior to SCAN

None.

Neurologic Evaluation & Diagnosis

Date of initial presentation to SCAN:

April 21, 2025

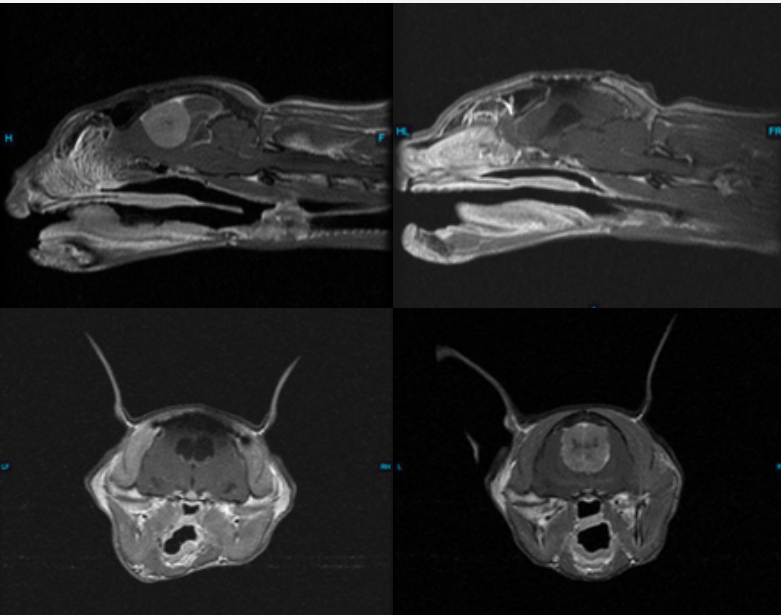
Neurologic examination: Dull but responsive. Walked over/through objects and bumped into walls. Wide circling in both directions, however, was more frequent to the right.

Neurologic Evaluation & Diagnosis (cont.)

- Mydriasis OU with appropriate direct and consensual PLRs. Absent menace response OU. Intermittently responded to cotton ball tracking, more frequently in the right visual fields.
- MRI findings:
- Strongly contrast-enhancing, symmetrical mid-falx extra-axial mass causing severe compression/distortion of the lateral ventricles, midline shift, and cerebellar herniation.

Treatment, Procedure & Post-Op Care

- Initial treatment on 4/21/25:
- Anti-inflammatory dose of prednisolone (1 mg/kg PO x 7 days, then 0.5 mg/kg/d PO)
- Surgical procedure to debulk the mass on 5/12/25: bilateral rostral tentorial craniectomy and cranioplasty with titanium mesh (performed with Dr. Theresa Pancotto from our Naples location)
- Given midline location of mass, required a bilateral approach to be able to successfully debulk the mass
 - This approach requires careful dissection as the dorsal sagittal sinus resides in this location. Due to compression, the dorsal sagittal sinus had been obliterated by the presence of this mass.
 - This mass was also adjacent to the frontal sinus, increasing the risk of infection.



Treatment, Procedure & Post-Op Care (cont.)

- Tumors are highly vascular, therefore adequate hemostasis is imperative to successfully visualize and remove the mass.
- Removal of the mass may result in acute brain swelling and increased intracranial pressure.

Hospitalization

- 12 hours at VEG CLW immediately post-op for overnight monitoring
- 2 nights at SCAN CLW
- Medications at discharge: prednisolone (1 mg/kg/d PO x 5 days, then 0.5 mg/kg/d PO), Clavacillin (14 mg/kg PO q 12 hrs), buprenorphine (0.02 mg/kg transmucosally q 8-12 hrs) and gabapentin (10 mg/kg PO q 8-12 hrs) PRN for pain relief, prophylactic levetiracetam (25 mg/kg PO q 8 hrs).

Recovery Milestones

- At discharge, patient returned back to his sassy self and only allowed handling by the owner
- At two week recheck: more himself, coordinated, jumping
- At 3 month recheck + recheck MRI: back to himself, off all medications

Outcome

- Successful debulking of the mass, although microscopic disease is often left behind
- Patient returned to his normal self and his quality of life had improved

Key Takeaways

- Meningiomas are the most common intracranial tumor in older cats
- These tumors are benign and slow growing; therefore signs can progress over many months
- Overall prognosis for surgical resection of intracranial meningiomas in cats is good as cats can live up to 3+ years after surgery alone, and therefore surgery (if surgically accessible) is often the recommended treatment.