

## **History**

Thank you for bringing Tinki to the neurology service. Tinki presented on the 1<sup>st</sup> of December having been recently rescued. She was underweight, and when seen by your regular veterinarian where concerns were raised for the suspicion of hydrocephalus and vertebral scoliosis. She was referred for evaluation of these two problems. At home you reported that she had a poor appetite, but seemed mentally quite normal.

## **Clinical and Neurological Examination**

Neurological examination showed normal cranial nerve function. She also seems neurologically normal in all four legs, although she is difficult to examine due to her size and degree of weakness. She has a domed forehead, and has prominent thoracic vertebrae.

## **Diagnostic Tests**

An ultrasound through the open fontanelle confirmed the hydrocephalus.

Spinal radiographs showed fused vertebrae from T10 to L2 (mid back region). She has hemivertebrae at the level of T9 and T10 and scoliosis of the spine at this point.

## **Diagnosis**

Hydrocephalus with currently open fontanelle

Vertebral abnormalities including fused vertebrae, and half vertebrae. This can result in spinal cord compression from excessive movement at the level of these abnormal bones.

## **Medication and Further Management**

We would like to start Tinki on a medication to decrease cerebrospinal fluid production. We have organised this to be compounded into liquid form, as the tablet strength would mean that she would need around a 10<sup>th</sup> of a tablet. Please pick up a 1ml syringe (without needle) from your regular veterinarian or from a pharmacy. Give Tinki 0.3ml of Omeprazole by mouth once daily. Get your pharmacist or veterinary nurse to show you the level on the syringe that corresponds to this amount.

We will need to monitor Tinki's growth and adjust the dose accordingly.

When she weighs 1kg please give her 0.4ml by mouth

And at 1.5kg, this can further be increased to 0.5ml.

## **Further Visits**

We would like to monitor Tinki regularly to determine how she is progressing. We would like to see her again in one month and then determine the frequency with which she needs to be re-examined. At the age of 12 months we may also put in a ventriculoperitoneal shunt.

Thank you for bringing Tinki to see us. If you have any queries or concerns please feel free to contact me at any time on 9731 2339.

Yours Sincerely

**Chloe Bowman, BVSc MACVS**

**Resident, Veterinary Neurology and Neurosurgery**

**Sam Long, BVSc PhD DipECVN**

**Senior Lecturer, Veterinary Neurology and Neurosurgery**

## **Further information about hydrocephalus**

The brain and spinal cord are bathed in cerebrospinal fluid (the fluid that is tapped and analyzed when a spinal tap is given). This fluid is created in chambers in the brain called ventricles. It circulates and is ultimately reabsorbed. In hydrocephalus, there is too much fluid either because of a drainage problem or an over-production problem. When the problem is congenital (meaning it's something an animal is born with), the skull is still soft enough to expand somewhat, leading to a dome-shaped head, but it does not take long for the skull bones to harden. Because the skull cannot expand with increased contents, the result is compression of the brain by the extra fluid