CASE STUDY:
SNUGGLES PRICE

Sacrocaudal Fracture in a Domestic Shorthair Cat

Patient Background:

- **Name:** Snuggles
- **Species/Breed:** Domestic Shorthair Feline
- **Age:** 1 year
- **Diagnosis:** Sacrocaudal fracture (unknown trauma)

Patient History

Snuggles, a 1-year-old Domestic Shorthair cat, escaped outdoors and was unsupervised for approximately 24 hours. Upon return, her owners noted difficulty moving her hind limbs and tail, as well as inability to urinate or defecate spontaneously.

Radiographs performed by her primary care veterinarian revealed a fracture at the base of the tail.

Snuggles was subsequently referred to SCAN for further evaluation.

Clinical Findings

Neurological Examination:

- Ambulatory with normal limb placement and reflexes
- Flaccid tail with slightly decreased anal tone
- Large, distended bladder that was easy to express but difficult to fully empty

Clinical Findings (cont.)

- Pain sensation:
  - **Negative**: distal tail (no conscious response to hemostats)
  - **Positive**: tail base

This pattern is typical of a sacrocaudal fracture, and it told us that her sciatic nerves (which control the legs) were spared, which was good news for her mobility.

Pathophysiology & Prognosis

Sacrocaudal injuries can result in varying degrees of neurological dysfunction depending on the extent of nerve involvement.

- **Prognostic indicators**:
  - Neurological severity is the strongest predictor of recovery.
  - Tail base pain sensation is associated with improved likelihood of regaining urinary and fecal continence, with many recovering within 30 days.
  - However, studies suggest ~60% of cats without tail base pain sensation may still recover.
- **Urinary dysfunction**:
  - Injury causes lower motor neuron urinary incontinence → large, distended bladder with weak sphincter tone.
  - Cats may leak urine continuously and be unable to completely empty their bladder.
  - Risk of urinary tract infection (UTI) is high.

Pathophysiology & Prognosis (cont.)

- Incontinence, while not life-threatening, significantly impacts quality of life for both the patient and family.

Surgical considerations:

- Tail amputation is generally recommended to prevent further injury.
- Surgery is typically delayed until urinary continence returns, as prognosis for quality of life is poor in permanently incontinent cats.

Literature Review

Couper & De Decker, 2020 (JFMS):

- Neurological severity is the strongest indicator of prognosis. Intact tail base sensation at early evaluation correlates with recovery within 30 days.

Tatton, Jeffrey, Holmes, 2009 (JSAP):

- Prospective study supporting prognostic value of tail base pain sensation in predicting recovery of urinary control.

Outcome/Plan

At this stage, Snuggles presents with tail base pain sensation, suggesting a favorable prognosis for regaining continence. Close monitoring of bladder management and infection risk is critical. Tail amputation will be considered once urinary function has improved.