

CASE REPORT

Canine Naproxen Toxicity

ACCESS Specialty Animal Hospitals - Los Angeles

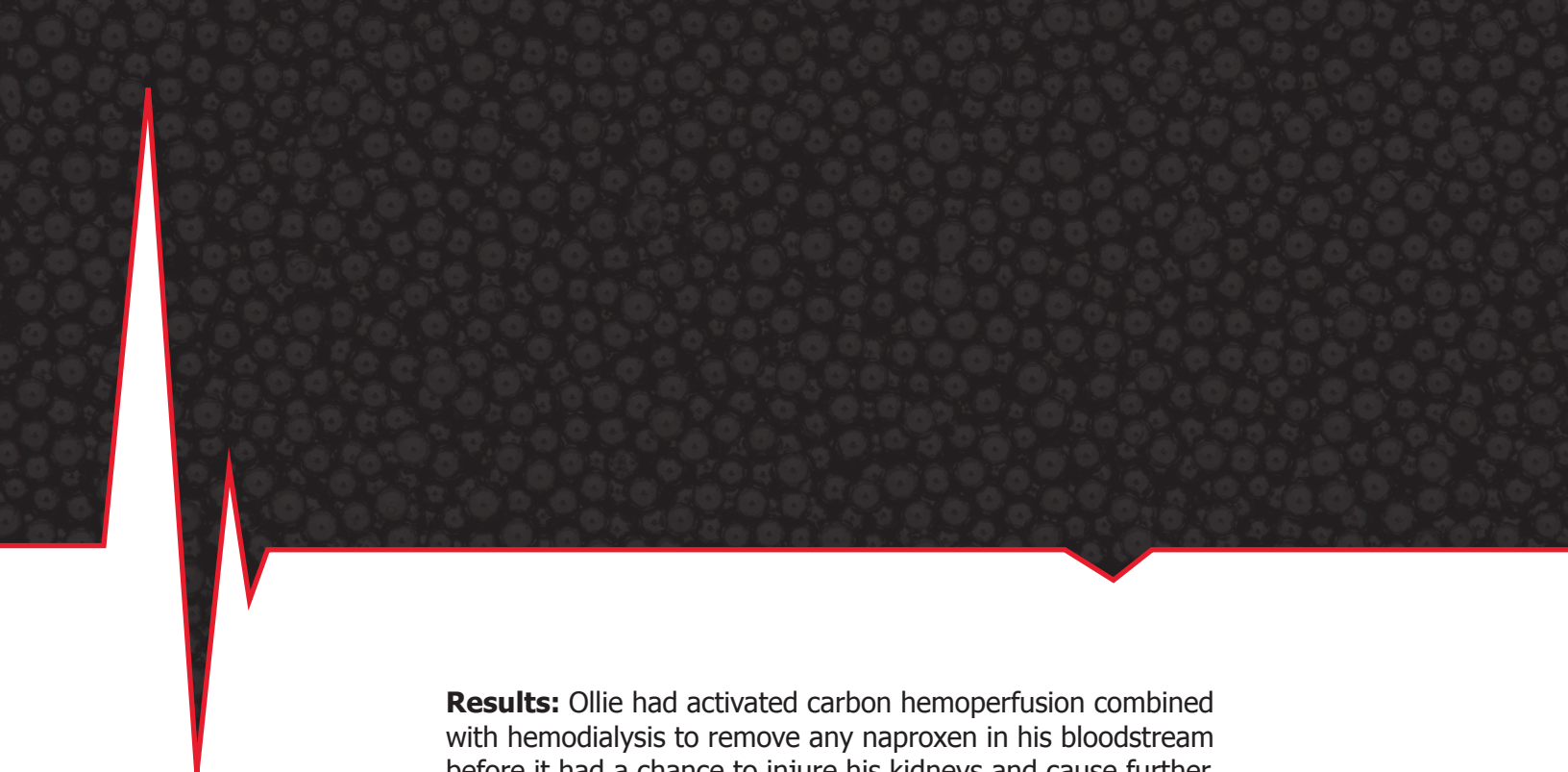


Patient: Ollie (3-Year and 10-Month-Old, Male Neutered, Jack Russell Terrier, 14.6 kg/32 lbs)

Presentation: Ollie came to the ACCESS ER at midnight. His owners deduced out of their three dogs, that Ollie, (who has a history of indiscriminate eating), was the culprit for ingesting one Aleve® tablet (220 mg of naproxen) that was left on a table around 9-10:30 that night. Ollie was showing gastrointestinal signs which indicated toxicosis from the naproxen.

Treatment: The ER team gave a drug to make Ollie vomit and then activated charcoal was given orally. Initial bloodwork was normal, but it can take 24-72 hours for kidney injury markers to show up. The renal toxic level of naproxen is 10 mg/kg and Ollie ingested about 15 mg/kg so there was concern for kidney damage. Naproxen has a long half-life (the amount of time it takes the amount of a drug's active substance in the body to reduce by half). This factor combined with the renal toxic level meant that Ollie was quickly referred to ACCESS Nephrology department and Dr. Amanda Spillane for further treatment. To facilitate a safe treatment, sedation was initially required due to Ollie's temperament. Then general anesthesia was performed for the dialysis catheter placement and carbon hemoperfusion was started at 6 AM (about 8 hours after the drug ingestion) and completed at 10:20 am. A total of 15 blood volumes were processed (16.7 L).





Results: Ollie had activated carbon hemoperfusion combined with hemodialysis to remove any naproxen in his bloodstream before it had a chance to injure his kidneys and cause further damage. In the hospital, Ollie experienced vomiting/regurgitation and diarrhea due to naproxen toxicity. Ollie's stool was dark and tarry in color suggestive of gastrointestinal bleeding. Activated charcoal can also cause black discoloration of the stool, however it typically resolves within 24-48 hours. He was hospitalized for the night and was released to his owners the next day with medications and instructions to return the next day to check kidney values. The kidney values at recheck were normal with no acute kidney injury (AKI).

Summary: Ollie was hospitalized at ACCESS Culver City for naproxen toxicity. Naproxen is a non-steroidal anti-inflammatory drug (NSAID) that has an extremely narrow margin of safety and exceptionally long half-life in dogs and cats, therefore having a large potential for toxicity. Ollie ingested a dose of naproxen that could cause both GI and renal toxicity. Since Ollie's overdose was noticed immediately, he was able to be treated right away. He had vomiting induced, and he was administered activated charcoal orally to prevent further GI absorption of the medication. Due to the dose of naproxen ingested, extracorporeal toxin removal was recommended, so hemoperfusion was performed, combined with hemodialysis.