

Ibuprofen intoxication in cats – a series of 10 cases

Introduction

Ibuprofen intoxication causes gastrointestinal ulceration and acute kidney injury in dogs, but has not been described in cats.

Material and Methods

Clinical data, treatment and outcome of ibuprofen intoxication in 10 cats from 2 veterinary clinics were retrospectively analyzed over a 5-year period.

Results

Ibuprofen ingestion was reported in 10 cats, 40 minutes to 4 days before presentation. Cats were 2 months – 8 years old, weighing 0.8 – 5.3 kg. Cumulative ibuprofen dose ranged from 10 – 535 mg/kg, ingested as total dose or divided in up to 3 single doses.

Clinical signs of intoxication were reduced mental status (8), anorexia (7), vomitus (3), hemorrhagic vomitus (1) and salivation (1).

Initial examination revealed hypothermia in 5, bradycardia in 2 and polypnea in 1 cat. Initial blood work showed azotemia (5), hyperkalemia (3), anemia (2) and hypoglycemia (1). All but one azotemic cat were younger than 1 year.

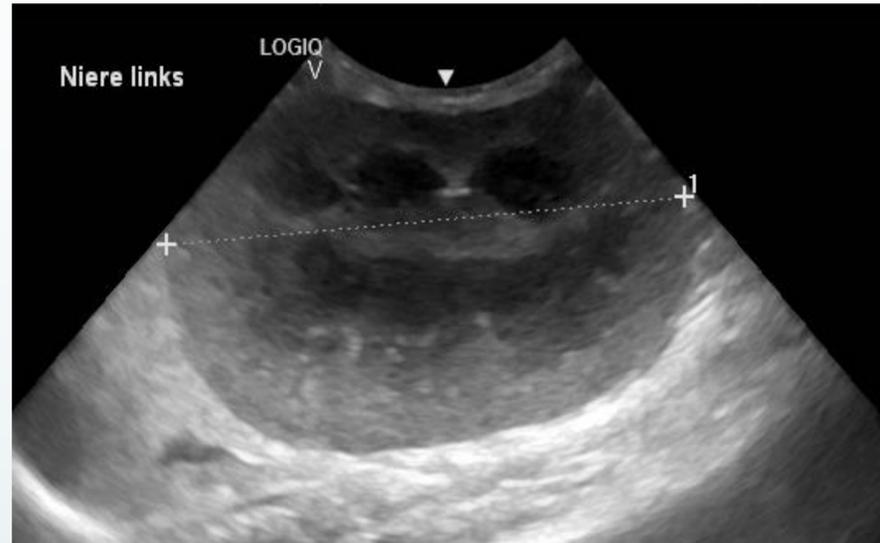


Figure 1: Ultrasound of the left kidney of a cat after ibuprofen intoxication with azotemia.

Ultrasound of the kidneys showed enlarged kidneys and a hyperechogenic renal cortex as well as a poorly defined cortico-medullary border (Figure 1).

Treatment consisted of fluid therapy (10), gastric decontamination (3), anti-emetics (4), gastric protectants (6), charcoal administration (3), glucose bolus (2), diuretics (1) and intravenous lipid therapy (2). One cat, receiving 0.25 ml/kg/min of a 20% lipid solution intravenously over 60 minutes developed severe stupor after lipid infusion over a time period of 18 hours.

Cat Nr.	Weight (kg)	Cumulative Ibuprofen dose (mg/kg)	Day 0 Crea (µmol/L)	Day 1 Crea (µmol/L)	Day 2 Crea (µmol/L)	Day 3 Crea (µmol/L)
1	0.8	40	736			
2	0.9	133	574	358	141	98
3	4.2	95	146		105	
4	2.7	222	211	238	357	59
6	1.3	80	329	406		149
7	4.7	42	106	149	141	
8	3.8	105	143	101		
9	5.3	37	167			
10	2.8	535	79			

Table 1: Ibuprofen dosages and creatinine values (Crea) of 9 cats with ibuprofen intoxication. Cat Nr. 5: no creatinine values were measured.

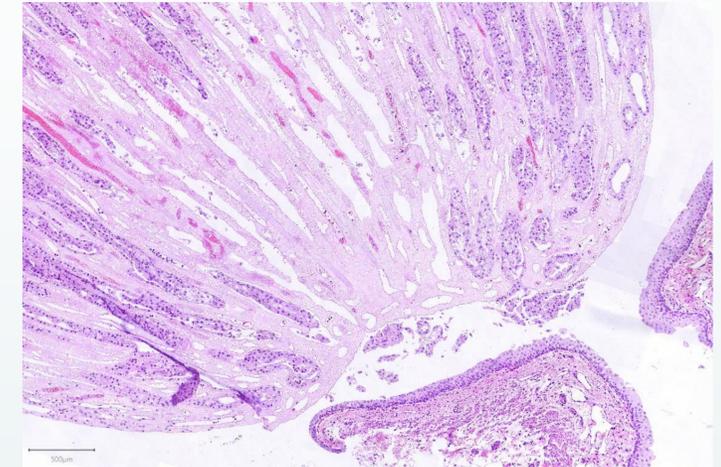


Figure 2: Necrosis of the renal papilla of a cat suffering from azotemia due to ibuprofen intoxication.

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One cat was euthanized after initial treatment on owners request due to severe azotemia and hyperkalemia (Table 1, cat 1). Acute tubular necrosis was observed during the pathologic examination (Figure 2).

All other cats were hospitalized for 6 hours – 5 days. Creatinine in 4 azotemic cats normalized within 4 – 5 days. All 9 hospitalized cats were discharged within 6 hours – 5 days.

Conclusion

Ibuprofen intoxication causes acute kidney injury and gastrointestinal signs in cats. With intensive treatment, clinical recovery can be reached within a few days even in azotemic cats.