

## Foreign Objects in the Form of Nails Found Inside the Gastrum of a Mixed Breed Dog Patient Handled at Klinik Hewan Jogja

Ida Tjahajati<sup>1\*</sup>, Adellyna Chrissandra<sup>2</sup> Anggi Desterina Prayitno<sup>2</sup>, Begum Fatima Ratu Aditya<sup>2</sup>, Ety Rrarindah<sup>2</sup>, Lilik Rifiyanta<sup>2</sup>, Mitra Atika Candra<sup>2</sup>, Sri Indah Astuti<sup>2</sup>, Tri Ari Widiastuti<sup>2</sup>

<sup>1</sup>Lecturer of Veterinary Medicine Faculty and Vocational Study of UGM

<sup>2</sup>Veterinarian of Klinik Hewan Jogja

\*Corresponding author's email: ida\_tjahajati@yahoo.com

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### INTRODUCTION

Various diseases could affect dogs, including disruptions of the *gastrium* caused by the presence of foreign objects. The dogs' habit of consuming miscellaneous objects around them was the common cause for the said objects, which should not exist within their body, to be swallowed and enter the stomach. This kind of case is often found among the growing puppies of large breed dogs [1]. This report aims to reveal the case of foreign objects finding within the gastrium of a dog patient handled at Klinik Hewan Jogja. In this particular case, we found foreign objects in the form of many nails and an assortment of metal wire pieces inside the gastrium of *mixed breed* dog Messi.

### CASE REPORT

- **Signalements.** Messi is a male, 4 months old, *mixed breed* dog, weighed at 6,8 kg. Owned by Mrs. Yani, Yogyakarta, and registration number xxxxxx/KHJ/2018/A.
- **Anamnesis.** We gathered that the dog had the habit to eat various objects around him, the owner had eleven other dogs and allowed them to roam the yard freely. The owner had Messi vaccinated once and dewormed it around two weeks prior to this visit. We found no worms among the fecal matter. The dog also showed a diminished appetite along with a weakened condition lately.
- **Clinical Signs.** The patient was observed with lethargy, 39,7°C body temperature, and normal breathing rate and pulse. The dog showed a pained response during the palpation upon the abdomen region. The fecal sample was greenish and appear to be mucous. Inspection of other system such as respiratory, cardiovascular, uropoetic, musculoskeletal, and nervous system showed normal results.
- **Laboratory Findings.** The laboratory findings of the blood sample taken before the retrieval of foreign objects from the stomach is shown within the table below. The blood

test showed that the patient was anemic with the Haemoglobin amount at 7,5 g/dL and erythrocyte number at  $3,44 \times 10^6$ . Kidney and liver tests results were in the normal range, which means they were functioning normally. Due to the emergency, a retrieval surgery was done despite the patient's anemic condition. The fecal sample was greenish, mucous, and foul smelling. We found no worm eggs nor other abnormalities under the microscope. Rontgen imaging proved the presence of foreign objects grouped inside the stomach of the dog. The Rontgen images were shown in Figure 1.

Table 1. Messi's blood results analysis

Parameter	Laboratory Results	Reference (Patrick <i>et al.</i> , 2011)
Hb (g/dL)	7,5	11-19
RBC (/uL)	$3,44 \times 10^6$	5,5-8,5
MCV (fL)	56,8	62-72
MCH (pg)	21,8	20-25
MCHC (g/dL)	38,4	30-38
WBC (/L)	$9,3 \times 10^9$	6-17
Neutrophil (/L)	$6,5 \times 10^9$	4-12,6
Lymphocyte (/L)	$2,4 \times 10^9$	0,8-5,1
Monocyte (/L)	$0,4 \times 10^9$	0-1,8
Basophil (/L)	0	0-2

- **Differential Diagnosis.** The differential diagnosis of this case was gastritis caused by bacterial and/or viral infection, or parasite infestations. Other possible causes were chemical agents' ingestion.
- **Diagnosis.** The diagnosis was foreign objects presence within the gastrium. Said foreign objects were nails and pieces of metal wire.
- **Prognosis.** The prognosis of this case was dubious to fausta. The reason was if those foreign objects were removed quickly, the possibility of complete recovery was high. Otherwise, the patient's life was at risk.
- **Therapy.** Laparoscopy was done to remove the foreign objects.



Figure 1. Rontgen image of Messi's gastrium

### DISCUSSION

Based on the anamnesis, physical examination, and Rontgen imaging, the dog was diagnosed with foreign objects presence within its gastrium, so a surgery was needed to remove said objects. After the surgery, many nails and metal wire pieces were found inside the gastrium. The nails and metal wire pieces retrieved from the patient's stomach are shown in Figure 2 until Figure 5. Foreign objects ingestion is often observed among growing puppies, especially large dog breeds, considering their habit to eat miscellaneous things around them [3,4].



Figure 2. Photograph of nail surgery from Messi's dog gastrium



Figure 3. Photograph of taking nails and other foreign objects from Messi's dog gastrium



Figure 4. Several nails retrieved from Messi's dog gastrium

After the successful retrieval of nails and metal wire pieces, Messi was given a post-surgery treatment according to the standard operating procedure (Figure 6). Following the treatment, the patient was declared healthy after being hospitalized for around 8 days, proven by a good appetite, good condition of the post-operative suture, and the generally happy mood.

This case showed that there is a high possibility for dogs to swallow random objects that they normally shouldn't. Continuous education should be given to pet owners and clients so they could be aware of such risks and that they should actively care and prevent their pets from eating random objects [3,1].



Image 5. Nails and metal wire pieces retrieved from Messi's dog gastrium



Figure 6. Messi's condition after the surgery

## CONCLUSION

We can conclude from the case report and the discussion that the *mixed breed* Messi has eaten foreign objects, proven by the finding of nails and metal wire pieces inside of its stomach.

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