DOI 10.36074/logos-13.03.2026.017

SPREAD AND ETIOLOGICAL STRUCTURE OF DENTAL DISEASES IN DOGS AND CATS

Semenov Daniil Kostiantynovych[1], Lieshchova Maryna Oleksiivna[2], Semenov Kostiantyn Arnoldovych[3]

1. Master, Doctor of Veterinary Medicine, Assistant Professor of the Department of Animal Anatomy, Histology and Pathomorphology, PhD Candidate
Dnipro State Agrarian and Economic University, UKRAINE

2. Candidate of Veterinary Sciences, Associate Professor of the Department of Animal Anatomy, Histology and Pathomorphology
Dnipro State Agrarian and Economic University, UKRAINE

3. Candidate of Medical Sciences, Associate Professor, Assistant Professor of the Department of Therapeutic Dentistry and Dentistry of the Postgraduate Education Division
Dnipro State Medical University, UKRAINE

Introduction. Dental pathology in small domestic animals is characterized by multifactorial etiology and high clinical significance. In large dogs (German shepherds, Labradors, Cane Corso), traumatic injuries come to the fore: fractures of tooth crowns (mainly canines and premolars) with pulp exposure leading to the development of pulpitis and periapical abscesses. Pathological dental abrasion due to chewing hard objects is also often observed.

Teeth crowding is pathognomonic for small dogs and breeds provoking the aggressive periodontitis development. Immune-mediated diseases such as gingivostomatitis and odontoclastic resorptive tooth lesions (TR) dominate in cats. A separate diagnostic problem is represented by oral neoplasms (epulis, squamous cell carcinoma, melanomas) and jaw osteomyelitis masked as general inflammatory processes.

Paper objective. Based on an expanded statistical data analysis from the veterinary center of Dnipro, to study the prevalence and etiological structure of dental diseases in dogs and cats.

Materials and methods. A retrospective analysis of 9,874 clinical cases was carried out over 12 months. The main sample of patients was differentiated into three streams:

1. Therapeutic (general clinical) – 6,813 (69%);

2. Surgical (general clinical) – 2,271 (23%);
3. Dental – 790 (8%).
In the dental group (323 dogs and 467 cats).

Research results. Statistical analysis confirmed that 8% of the total stream of patients of the clinic require special dental care. Cats dominate the admission structure (59.1%), which is due to a high frequency of specific chronic lesions of the oral mucosa and hard tooth tissues.

Distribution by type of pathologies:

Therapeutic segment (68%, 537 animals): the main work scope was oral cavity sanitation in degree 1-3 periodontitis. Gingivitis was mainly diagnosed in cats (61% of the group). Pathologies against the background of teeth crowding, degree 1-2 periodontitis, loss of periodontal teeth support, endodontic treatment of root canals, fracture of tooth crowns, and apical abscesses dominated in dogs (39% of the group).

Surgical segment (32%, 253 animals): in cats (55% of surgery), a substantial proportion is composed of type 1-2 resorptive tooth lesions requiring exclusively surgical treatment. In dogs (45% of surgery), a substantial proportion is composed of extractions in temporary teeth persistence, complex removal of broken teeth without the possibility of endodontic treatment, treatment of oroantral fistulas.

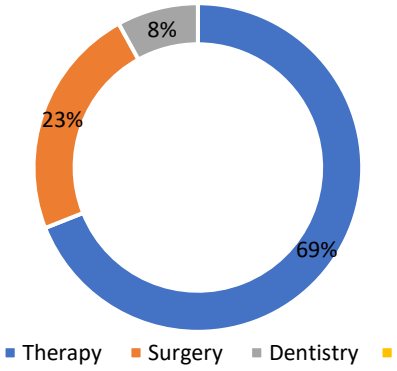

Fig. 1. **Structure of general clinical admission of animals by directions of veterinary aid**

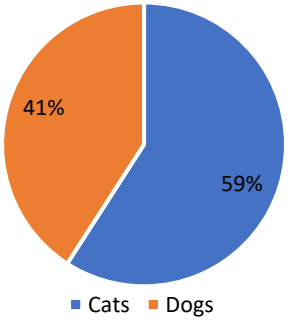

Fig. 2. **Species disposition of the dental profile patients**

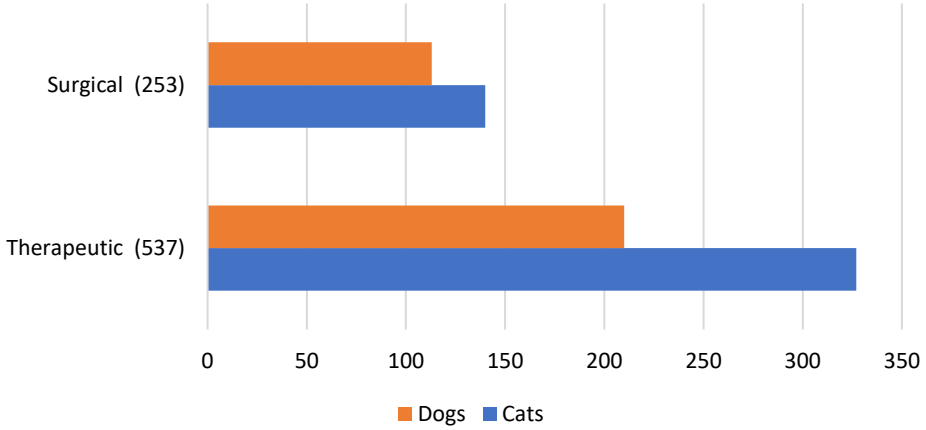

Fig. 3. **Distribution of dental manipulations by type of intervention and animal species**

Conclusion. Dental pathologies in the Dnipropetrovsk Region have a pronounced species and breed specificity. The prevalence of traumatic fractures in large dogs and resorption in cats require the compulsory use of dental X-ray as the "gold standard" of diagnosing. Statistics of surgical activity (32%) indicate the need for transition from extraction to early prevention, correction of tooth crowding and treatment of root canals in fractures to preserve the functionality of animal dentofacial system.

REFERENCES:

[1] Baranovskyi, O. V., Kovalov, P. V., & Kovalova, L. O. (2020). Monitoring the spread of dental pathology in small animals within the conditions of Zhytomyr City. *In Modern aspects of treatment and prevention of animal diseases: Collection of scientific conference abstracts* (pp. 15–16). Poltava.

[2] Hrytsiuk, N. V., & Borysevych, V. B. (2016). Spread and causes of periodontal diseases in dogs and cats. *Scientific Bulletin of the Stepan Gzhytskyi Lviv National University of Veterinary Medicine and Biotechnologies*, 18(1), 35–39.

[3] Niemiec, B. A. (2021). *Veterinary periodontology*. John Wiley & Sons.

[4] Enlund, K. B., et al. (2020). Dog owners' perspectives on their dog's oral health. *Frontiers in Veterinary Science*, 7, Article 298.