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ETIOLOGY AND DIAGNOSIS OF OTITIS IN DOGS

(Literature Review)

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Abstract. This article reviews the etiology, causative factors, and diagnostic approaches of otitis in dogs. It highlights the role of microorganisms such as bacteria, fungi, and ear mites as key pathogens, as well as breed predisposition and anatomical features that contribute to disease development. Various diagnostic methods, including video otoscopy and cytological examination, are discussed as essential tools for confirming the diagnosis.

Keywords: canine otitis, *Staphylococcus aureus*, otodectosis, East European Shepherd, Cocker Spaniel, Poodle, ear mites, cytology, video otoscopy, inflammation.

Introduction

Otitis accounts for nearly 20% of all canine diseases, most commonly manifesting as external or middle ear inflammation. Typical symptoms include restlessness, head shaking, scratching of the affected ear, tilting of the head, local heat, pain upon palpation, and discharge from the ear canal, which may be serous or purulent in nature [4].

The high prevalence of ear diseases among dogs significantly affects their health, behavior, and productivity. Therefore, understanding the spread, etiology, and diagnostic principles of otitis in dogs is of great clinical importance.

Materials and Methods. This literature review analyzes domestic and international publications on canine otitis etiology, prevalence, and diagnostic methods. The review summarizes findings from monographs, research articles, and veterinary reference books. Key focus areas include bacterial, fungal, and parasitic causes of otitis, as well as diagnostic practices such as otoscopy, cytology, and the use of video otoscopy for clinical visualization.

The information synthesized from sources [1–5] provides insight into the mechanisms of infection, predisposing factors, and diagnostic efficiency in canine otitis cases.

Results and Discussion. Etiological Factors. The major pathogens associated with otitis in dogs include bacteria such as *Staphylococcus aureus*, *Streptococcus* spp., and *Proteus* spp., alongside fungal species such as *Aspergillus*. Among these, *S. aureus* and fungal infections are the most frequent. The ear mite *Otodectes cynotis* is also a significant cause of otodectic otitis. This parasite lives on the epidermal surface of the ear canal, leading to irritation, inflammation, and crust formation. The disease is contagious and can spread between dogs and cats through direct contact.

Breed Susceptibility and Predisposing Conditions. Otitis incidence is closely related to ear anatomy and breed characteristics. Breeds such as East European Shepherds, Cocker Spaniels, and Poodles are particularly prone to the disease, especially those with pendulous ears that limit air circulation and retain moisture. Other predisposing factors include excessive ear wax accumulation, auricular hematomas, foreign bodies, parasitic infestations, and exposure to cold water [1,2].

Diagnostic Techniques. Accurate diagnosis is critical for effective treatment. Video otoscopy has been recommended by many researchers [5] because it provides better illumination and magnification, allowing the veterinarian to detect foreign objects and assess the extent of inflammation. Cytological examination of ear exudate is a vital complementary method that helps identify leukocytes, epithelial cells, and microorganisms [3]. In suspected otodectosis, microscopic analysis of ear samples confirms the presence of mites.

Failure to properly diagnose and treat otitis, particularly purulent forms, may lead to tympanic membrane rupture and progression of infection into the inner ear or meninges, potentially resulting in life-threatening meningitis.

Conclusion

1. Ear diseases are widespread among dogs, with otitis accounting for 20–30% of all clinical cases.
2. The main causative agents include *Staphylococcus aureus*, *Streptococcus* spp., *Proteus* spp., fungi, and *Otodectes cynotis* mites.
3. Breeds with pendulous ears are more susceptible due to poor ventilation and moisture accumulation in the ear canal.
4. Early diagnosis using video otoscopy and cytology plays a vital role in effective treatment and prevention of complications.
5. Further studies are needed to investigate antimicrobial resistance and improve diagnostic imaging techniques for canine otitis.

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