

Otitis Interna

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BASIC INFORMATION

Description

Otitis interna is an inflammatory condition of the structures of the inner ear.

Causes

Otitis interna may be caused by bacterial, fungal, and rickettsial (tick-borne) infections. Noninfectious causes include the following:

- Idiopathic (cause unknown) congenital disease, in which signs occur at birth, can cause otitis interna. It is more common in purebred dogs, such as the Doberman pinscher, German shepherd dog, English cocker spaniel, and beagle. It also occurs in Burmese and Siamese cats.
- Idiopathic acquired diseases, such as old dog and feline vestibulitis, affect the vestibular apparatus (partially responsible for balance) in the ear.
- Metabolic diseases, such as hypothyroidism (low thyroid hormone levels) and hyperadrenocorticism (elevated cortisol hormone levels), may be involved.
- Traumatic and compressive events, such as foreign bodies in the ear, trauma, cancerous tumors, and benign inflammatory polyps, may cause otitis interna.

Clinical Signs

Signs include head tilt, falling, circling, nausea and vomiting, and abnormal eye position or abnormal movements of the eye.

Diagnostic Tests

A complete neurologic examination is usually performed to determine which part of the nervous system is involved.

For infectious diseases, there is usually a prior history of chronic otitis externa and/or otitis media. Initial diagnostic tests are similar to those used in animals with otitis externa or otitis media. They include otoscopy as well as cytologic examination and culture of exudate from the external and middle ear. In addition, laboratory tests for rickettsial or fungal diseases and advanced imaging may be recommended; magnetic resonance imaging is the preferred test. A deep ear flush may be needed. A spinal tap and analysis of cerebral spinal fluid (CSF) is indicated in certain circumstances.

For noninfectious diseases, radiographic imaging is needed to determine whether a benign inflammatory polyp or tumor is present and to look for signs of trauma. For idiopathic acquired vestibular disease, it is important to rule out underlying causes and other diseases with similar signs.

TREATMENT AND FOLLOW-UP

Treatment Options

Treatment of infections includes long-term systemic (oral) antimicrobial medications. For noninfectious diseases, supportive care in the hospital (adequate fluid therapy, nutrition, nursing care) is often required during the early stages, since the animal may have trouble eating, drinking, and walking. Antivertigo drugs may be prescribed for dizziness. Surgery is often needed if a benign inflammatory polyp or tumor of the ear is present.

Follow-up Care

Animals with infectious otitis interna are usually rechecked in 2-4 weeks. If the condition worsens, notify your veterinarian so that the animal can be seen sooner. In most cases, improvement occurs during the first week of treatment. Recurrent episodes of infectious otitis interna are most common when chronic bacterial otitis media is also present.

Animals with idiopathic, acquired vestibular disease usually improve within 2 weeks after the onset of the signs, but it may take several weeks for the signs to stabilize. The need for recheck examinations varies, depending on whether the signs steadily improve. Recurrent episodes of idiopathic, acquired vestibular disease are uncommon.

Prognosis

Prognosis for infectious otitis interna is fair to excellent with appropriate antimicrobial therapy but is worse for fungal infections. Prognosis for noninfectious otitis interna is variable, depending on the cause. It is excellent for idiopathic, acquired vestibular disease; fair for idiopathic, congenital vestibular disease; and excellent for benign inflammatory polyps that can be surgically removed.