Primary otitis media in cats

In the cat, primary otitis media occurs as a result of infection ascending through the Eustachian tube to the middle ear. An exact mechanism for the development of otitis media in the cat has not been reported, although the bacterial isolates from the bullae of cats with middle ear disease are consistent with respiratory pathogens. It has been hypothesized that chronic viral upper respiratory infection early in life may play a role in initiating otitis media in cats, because these infections and polyps occur in younger cats. This has not been documented with virus isolation studies, however. In one study, tissues from inflammatory polyps were assayed for feline calicivirus and feline herpesvirus-1 by polymerase chain reaction (PCR).

Failure to detect either of these viruses suggests that persistence of these viruses is not associated with the development of inflammatory polyps. The presence of these viruses may change the ability of the auditory tube to protect the bulla from infection with other agents, however. In many species, including human beings, rats, pigs, and cattle,

Mycoplasma has been reported as an inducing agent in middle ear disease. In addition to the more common streptococci and staphylococci isolated from clinical feline otitis media cases, organisms much more difficult to culture and identify, such as Mycoplasma and Bordetella, have also been cultured from the middle ear of cats with otitis media [5]. It is unclear what role these upper respiratory bacteria may play in the pathogenesis of feline otitis media. It is also unclear whether anaerobic organisms may be involved when the eardrum is intact and the auditory tube swells, thus sealing these bacteria within the bulla. Cytology or cultures often do not reveal an infectious organism. This raises the question of whether allergy, viruses, or fungi have a role in feline middle ear disease.