

Abstract

Jasim, A. S., Sawad, Al. A., Al-Tameemi, H. & Alsaad, K. M. (2025). Feline Otitis caused by *Proteus mirabilis* in

Basrah, Iraq. Bulg. J. Agric. Sci., 31(2), 397–403

This study was conducted on 52 local cat breeds, one- and more than one-year-old, of both sexes, from Basrah province,

Iraq, showing signs of otitis. Aural cytology is collected and added to the enrichment broth. The diagnosis of the causative organism depended on morphological and molecular techniques. The organisms on MacConkey agar exhibited mucoid, non-lactose fermenters, and colorless colonies; and the Gram's staining showed negative bacilli. Furthermore, all isolates showed

positive results in Citrate utilization tests. The result of the triple sugar iron agar of the causative organism was acidic (change

of color to yellow) and gas production. Furthermore, several isolates showed a swarming phenomenon on nutrient agar. Results

were also validated using DNA sequencing and the PCR technique. The results showed that out of the 52 studied cases, 15

were from *Proteus* species, of which 7 were confirmed to be *Proteus mirabilis*. Seven isolates of the confirmed *Proteus mirabilis* selected were deposited in the gene bank database (accession numbers OR185608, OR185604, OR185605, OR185606,

OR082827, OR082828, and OR082829). A phylogenetic tree analysis based on 16S rRNA gene sequence analysis of *Proteus*

***mirabilis* was constructed to show the evolutionary relationships of the obtained sequence with similar sequences in the databases using MEGA11 software. Feline ear infections (especially those caused by *Proteus* species) are important and growing.**

Therefore, preventive and therapeutic measures are very important to limit the spread of the disease.

Keywords: Feline Otitis; *Proteus mirabilis*; Basrah; Iraq