INTRODUCTION

The aerobic Gram-negative diplococcus Branhamella catarrhalis is a normal colonist of the nasopharynx in both healthy children and adults. **(Ingvarsson et al., 1982a and Ahmad et al., 1985a).**

For many years, this organism was included in the genus Neisseria and was known as Neisseria catarrhalis. In 1970, it was transferred to a new separate genus "Branhamella", named in honor of a distinguished American microbiologist: Sarah Branham. **(Catlin, 1970).**

The new generic name was proposed on the basis of, comparison of DNA base content between B. catarrhalis and other Neisseria species. **(Catlin & Cummingham, 1961 & 1964; Bovre, 1967 and Catlin, 1970).** Other genetic, biochemical and serologic properties also support separate classification of B. catarrhalis **(Russel & McDonald, 1976; Johnson et al., 1976; Fox & McClain, 1974 & 1975; Holten & Jyssum, 1974; Russel et al., 1978 and Eliasson, 1980).**

Bovre (1984) reclassified B. catarrhalis as a subgenus of Moraxella. This was based on their similar base content (G + C) of DNA which is 40-45 moles percent so that B. catarrhalis shares genetic properties with Moraxella liquefaciens.

Reports published during the last decade have changed the earlier commonly held view of B. catarrhalis as merely being a harmless saprophyte of the upper respiratory tract. A pathogenic role of this bacterium has been indicated in several types of infections including maxillary sinusitis **(Brorson et al., 1976)**; chronic bronchitis and bronchopneumonia in the compromised host **(Ninane et al., 1978a & 1978b)**; and acute laryngitis in the adults **(Schalen et al., 1980)**. Case reports concerning bacteremia with meningitis have also been published **(Elston et al., 1970)**. Sporadic cases of Septicemia are also reported **(Burnet et al., 1975; Doern et al., 1981 and McLeod et al., 1985)**.

B. catarrhalis has also been established as an important cause of acute otitis media (AOM) which is a common infection in children. It was the only pathogen isolated from middle ear fluid in 4-9% of cases of AOM in children in several studies **(Gronroost et al., 1964; Coffey et al., 1966 & 1967; Nilson et al., 1969; Howie et al., 1970 and Kamme et al., 1971)**. In some recent study groups, the incidence of B. catarrhalis in middle ear effusion has been reported to be as high as 10-27% **(Kovatch et al., 1983; Shurin et al., 1983; Karma et al., 1985 and Van Hare et al., 1987)**.

Karma et al. (1985) reported that B. catarrhalis must today be considered, after Streptococcus pneumoniae and Haemophilus influenzae the third most important pathogen in AOM.

Serological studies by **Leinonen et al.(1981)** further supported the pathogenic role of B. catarrhalis in AOM by showing local and systemic antibody responses to B. catarrhalis in children who had culturable Branhamella in their middle ear fluids of AOM.

Although B. catarrhalis was thought to be uniformly susceptible to penicillin **(Kamme, 1970)**, several studies have demonstrated that clinically significant isolates of B. catarrhalis were resistant to penicillin by virtue of their ability to produce beta-lactamase enzyme **(Malmvall et al., 1977; Hoi-Dang Van et al., 1978; Doern et al., 1980; Kovatch et al., 1983 and Shurin et al., 1983).**

The high incidence of B. catarrhalis in AOM is of concern because a high proportion of the strains isolated are resistant to ampicillin, the first - choice antibiotic for treating this disease **(Bluestone, 1985).** Thus the importance of B. catarrhalis in AOM seems to be increasing and demands more attention **(Karma et al., 1985).**