

(TEM)***Moraxella catarrhalis****(NDI)*

(2005/2/20 2004/10/17)

Moraxella catarrhalis

Transmission Electron

(%86.6) 26 Capsule Microscopy (TEM)

Fimbrae

Tack-Spicule Like Structure

**Study on Outer Cell of *Moraxella catarrhalis* Isolated from
Respiratory System Infections by Transmission
Electron Microscopy**

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ABSTRACT

This study use numbers of *Moraxella catarrhalis* strains isolated from sputum and swab samples from both sexes of different age patients infected with respiratory system diseases. Aims of study were determine the virulence factors of adherence structures on the outer cell wall of bacteria. Transmission electron microscopy (TEM) by phosphotungstate pigment showed that bacteria posses capsules in 26(86.6%) of strains and most of strains have fimbrae on outer bacterial cell wall but no found in some other strains were detected. Also TEM showed tack-spicules like structure on outer surface of the strains.

Opportunistic *Moraxella catarrhalis*
(Oro-Nasopharyngeal) -
(Fitzgerald et al., 1999b)
(Hol et al., 1996) .(60)
(Chronic Obstructive Pulmonary Disease (COPD))
(Pneumonia) (Sinusitis) (Acute Otitis Media (AOM))
((Fitzqeraded et al., 1996; Vaneechoute et al., 1990) (Laryngitis)
(Endocarditis) (Meningitis) (Bacteremia)
M. catarrhalis . (Porsson et al., 1998; Sanyal et al., 1990)
(Fimbriae) (Capsule)
(Tack – Spicules Like Structure)
(Colonization)
(Murphy et al., 1998; Ahmed et al., 1994)

.Transmission Electron Microscope (TME)

:

M. catarrhalis

(Vaneechott et al., 1988)

(Barbe et al., 1994) Biomerieux

API-NH

.

:

Formvar

(TME)

Grid

%2

... (TEM)

1.5 × 10⁹ cfu/ml

(Fitzgerald et al., 1999b) (MacFarland No. 5)

(60) Philips CM10

.(Glauert, 1974)

M. catarrhalis

Catalase Oxidase

Moraxella

DNase (Singh et al., 1997; Jannes et al., 1993) *Neisseria*

API-NH .(Soto-Hernandez et al., 1988)

.(Barbe et al., 1994) *M. Catarrhalis*

.(1) Capsule

%86.6

Phagocytosis

Ahmed .(Virella, 1997) (Polysaccharide)

(1992)

(1997) Mckenzie Enright

Fimbrae

COPD

MD-181

(2)

MB-16

(3)

M. catarrhalis

(Ahmed et al., 1992)

Fitzgerald et al.) Proteolysis K Trypsin Lysis

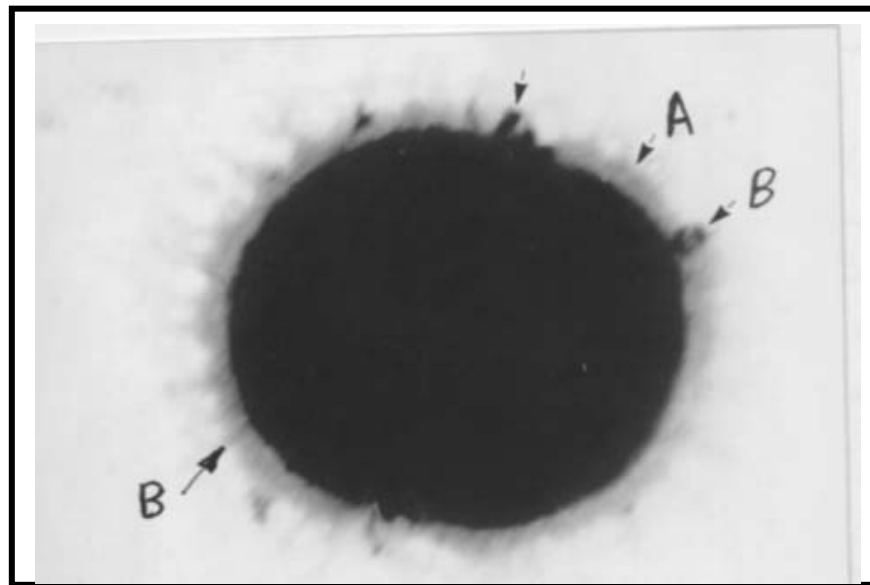
M. catarrhalis

(al., 1999b)

Neisseria

(Bootsma, 1999; Fitzgerald et al., 1999a)

Vibrio

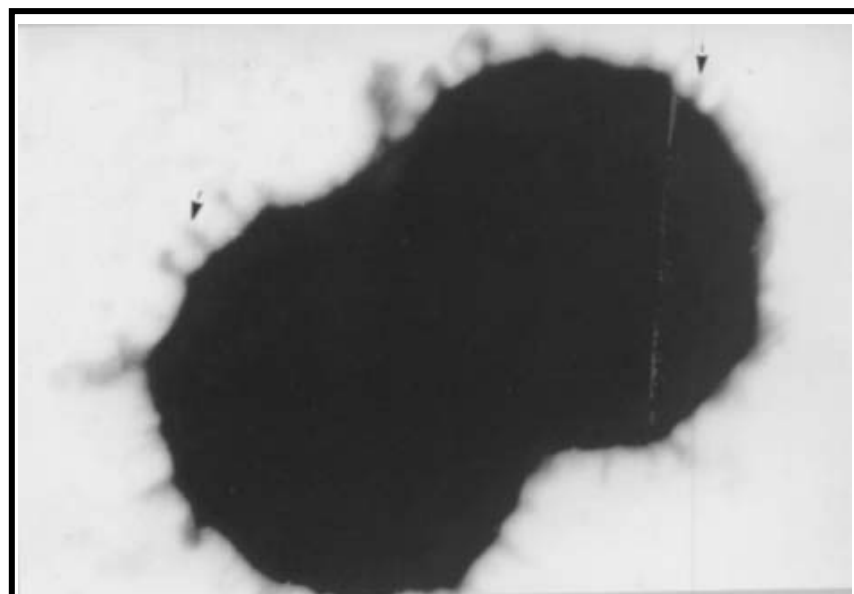


-B - A :1

(34000X)

MD-1

M. catarrhalis



M. catarrhalis

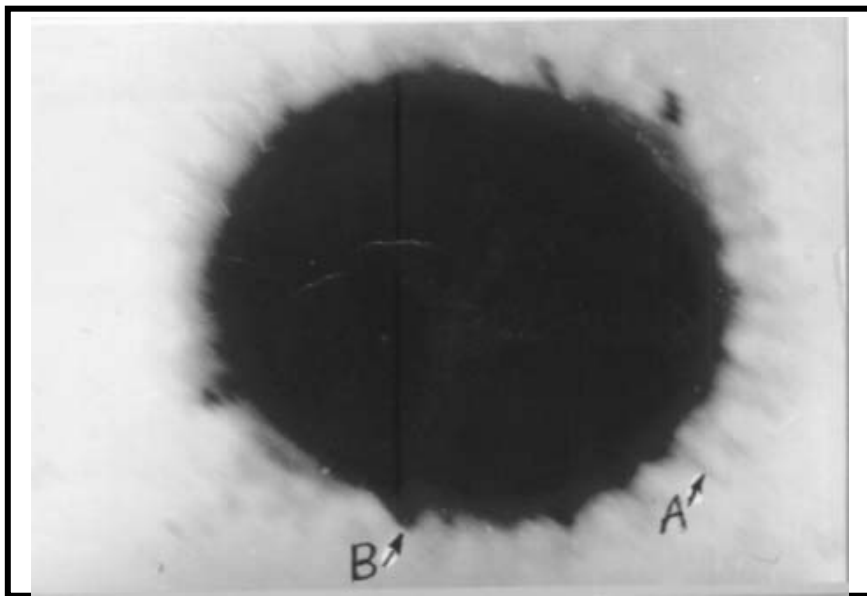
: 2

(64000X)

MD-181

...

(TEM)



-B -A : 3

.(94000X)

MB-16

M. catarrhalis

(MC-10) (4)

(AOM)

(1998) Kyd

M. catarrhalis

.(Rikitomi et al., 1997; Ahmed et al., 1994)

MB-16 (3)

MD-1 (5)

Tack–Spicule Like Structure

Protinase Trypsin

.(1999a) Fitzgeraled

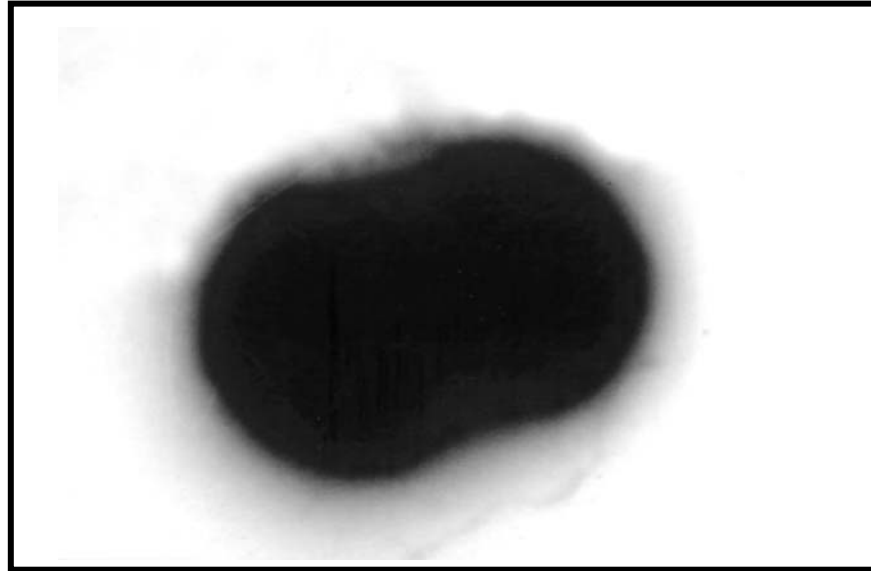
DNase

Beta-Lactamase

M. catarrhalis (Pathogenesis)

Fitzgerald et al., 1999a; Bootsma et al., 1999;)

.(McMichael et al., 1998; Gorter et al., 2000

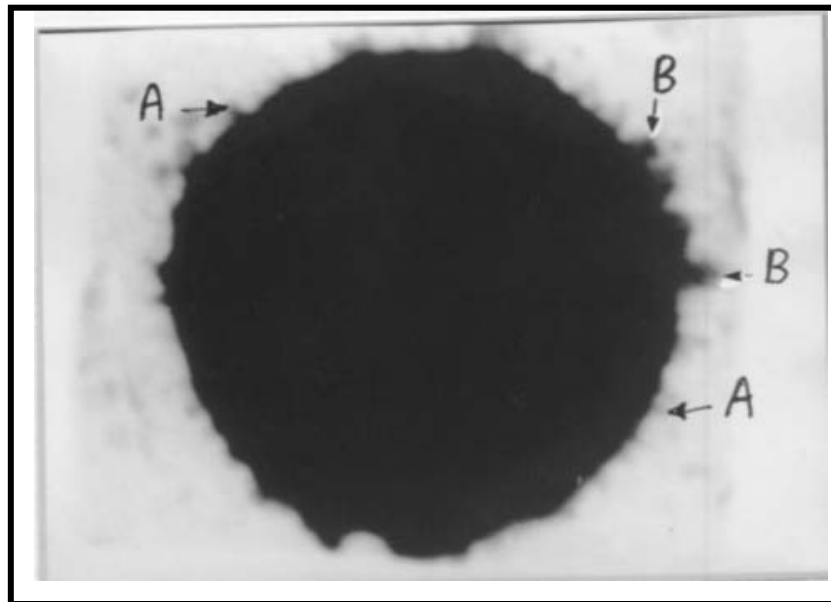


M. catarrhalis

: 4

.(34000X)

MC- 10



-B

-A

: 5

MD-1

M. catarrhalis

.(94000X)

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