

(2003/11/1 2003/8/16)

80 20
%70 *Proteus mirabilis*

%20 *Pr. vulgaris*

Pr.

%10 *penneri*

Tobramycin

.Trimethoprim Ampicillin

Ciprofloxacin

Isolation and Identification of *Proteus* Species from Urinary Tract Infection and Study of Its Response to Antibiotics

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ABSTRACT

Three bacterial species of *Proteus* bacteria have been isolated from various age groups (males and females) suffering from urinary tract infection. Subsequently, the isolates were diagnosed through observation of three morphological, cultural and biochemical features. Twenty isolates out of 80 patients have been diagnosed.

The study revealed that the highest infection was caused by *Pr. mirabilis* which was 70%, while infection with *Pr. vulgaris* was only 20%. These two kinds of bacteria are widely spread specially in urinary tract infections which have rather become complex due to abnormal function and composition and patients who received catheterization. As for species *Pr. penneri* it came up to from 10%. This species is rather limited in the number of isolation and only appears in certain pathological cases.

The response of antibiotic sensitivity tests has shown that the isolates were sensitive to Tobramycin, Ciprofloxacin and resistance to Ampicillin, Trimethoprim.

Proteeae

Proteus

Phenylalanine deaminase

Swarming

Hauser

Proteus

. (Penner, 1981)

Pr. Pr. myxofaciens Pr. vulgaris Pr. mirabilis

.(Holt *et al.*, 1994) *penneri*

.(Cook *et al.*, 1995)

UPEC

.....

.(Foxman *et al.*, 1995)

Pr. mirabilis

.(Mobley *et al.*, 1994; Herias *et al.*, 1997)

.(Huovinen *et al.*, 1995)

:

80

:

:

Oxoid BioMerieux

-

24 ° 37

(3-2)

:

Pr.

.(Macfaddin, 1985)

Pr. penneri

vulgaris

(Baron and Finegold, 1990)

BioMerieux

API20E

:

11

(Cruickshank, 1975)

Oxoid

.(Vandepitte *et al.*, 1991)

(Vandepitte *et al.*, 1991)
³ 5

(Bauer *et al.*, 1966)
 (5-3)

³ / (10⁸ × 1)

³ 0.6

(Macferland Tube No. 1)

%1 ³ 10

-

(5-3)

Muller-Hinton Agar

24 ° 37

.(Vandepitte *et al.*, 1991)

:

Gentamycin (5 µg) Ciprofloxacin (50 µg) Carbencillin (10 µg) Ampicillin
 (30 µg) Chloramphenicol (30 µg) Tetracycline (10 µg) Tobramycin (10 µg)
 (300 Nitrofurantoin (25 µg) Trimethoprim (5 µg) Rifampicin (30 µg) Nalidixic acid
 . µg)

:

80

20

(1)

:1

| | | | |
|------------|-----------|--------------------------|---|
| | | | |
| % | | | |
| 70 | 14 | <i>Proteus mirabilis</i> | 1 |
| 20 | 4 | <i>Proteus vulgaris</i> | 2 |
| 10 | 2 | <i>Proteus penneri</i> | 3 |
| 100 | 20 | | |

.(2)

.....

:2

| <i>Proteus</i> | | | | | () | |
|-----------------------|---|--|--|--|-----|----|
| <i>Pr. mirabilis</i> | + | | | | 25 | 1 |
| <i>Pr. mirabilis</i> | + | | | | 29 | 2 |
| <i>Pr. mirabilis</i> | - | | | | 19 | 3 |
| <i>Pr. vulgaris</i> | + | | | | 44 | 4 |
| <i>Pr. vulgaris</i> | + | | | | 3 | 5 |
| <i>Pr. mirabilis</i> | - | | | | 36 | 6 |
| <i>Pr. mirabilis</i> | - | | | | 7 | 7 |
| <i>Pr. mirabilis</i> | - | | | | 22 | 8 |
| <i>Pr. mirabilis</i> | - | | | | 10 | 9 |
| <i>Pr. mirabilis</i> | - | | | | 18 | 10 |
| <i>Pr. mirabilis</i> | - | | | | 26 | 11 |
| <i>Pr. mirabilis</i> | + | | | | 32 | 12 |
| <i>Pr. mirabilis</i> | - | | | | 38 | 13 |
| <i>Pr. vulgaris</i> | + | | | | 39 | 14 |
| <i>Pr. mirabilis</i> | + | | | | 30 | 15 |
| <i>Pr. vulgaris</i> | + | | | | 22 | 16 |
| <i>Pr. mirabilis</i> | - | | | | 2 | 17 |
| <i>Pr. mirabilis</i> | + | | | | 8 | 18 |
| <i>Pr. penneri</i> | - | | | | 5 | 19 |
| <i>Pr. penneri</i> | - | | | | 6 | 20 |

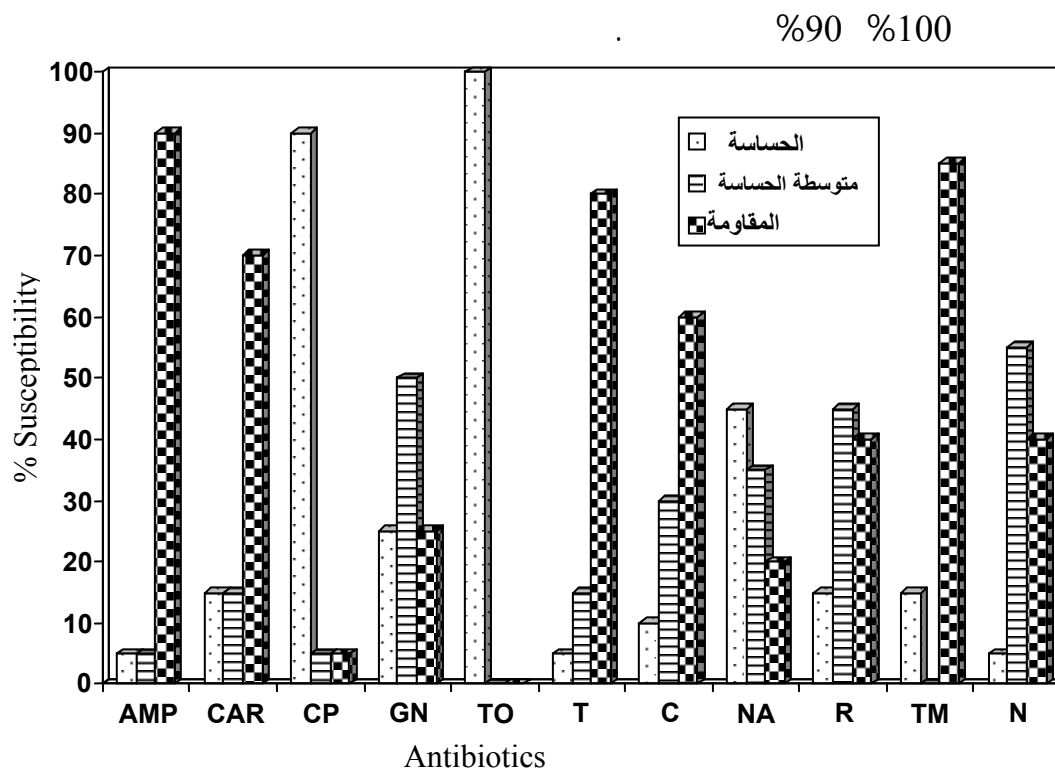
:

:

(1,2) API 20E

.....

Ciprofloxacin Tobramycin



:2

Pr. mirabilis (Muhldorfer et al., 2001)

Collee et al., 1996;)

(Zunino et al., 1999; Liaw et al., 2000

Pr. vulgaris (Koneman et al., 1997)

Pr. penneri

%12 (20-10) (Warren, 1996)

(Warren, 1996)

(Senior, 1999)

.(Chippendale *et al.*, 1994)

.(Allison *et al.*, 1992)

(Huovinen *et al.*, 1996)

(Bush *et al.*, 1995)

Nitrofuration

Ciprofloxacin

.Ampicillin

Gentamycin

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