

Epidemiology and resistance of uropathogens in elderly

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Introduction

The emergence of urinary tract infection (UTI) caused by resistant *Enterobacteriaceae* becomes an alarming health problem especially in elderly. The aim of this study was to describe the main epidemiological and microbiological characteristics of UTI in elderly.

Patients- Methods

It is an observational and retrospective study concerning documented UTI occurring in elderly patients who were hospitalized in the internal medicine department of Taher Sfar Hospital between 2013 and 2019. Epidemiological and microbiological data were collected from patients' files

Resultats

Epidemiological data

- 80 cases
- Mean age: 71 years
- Sex ratio: 0.27 (72.8% female)
- Low physical activity: 35 (43.7%); Bed-bound: (31.4%)

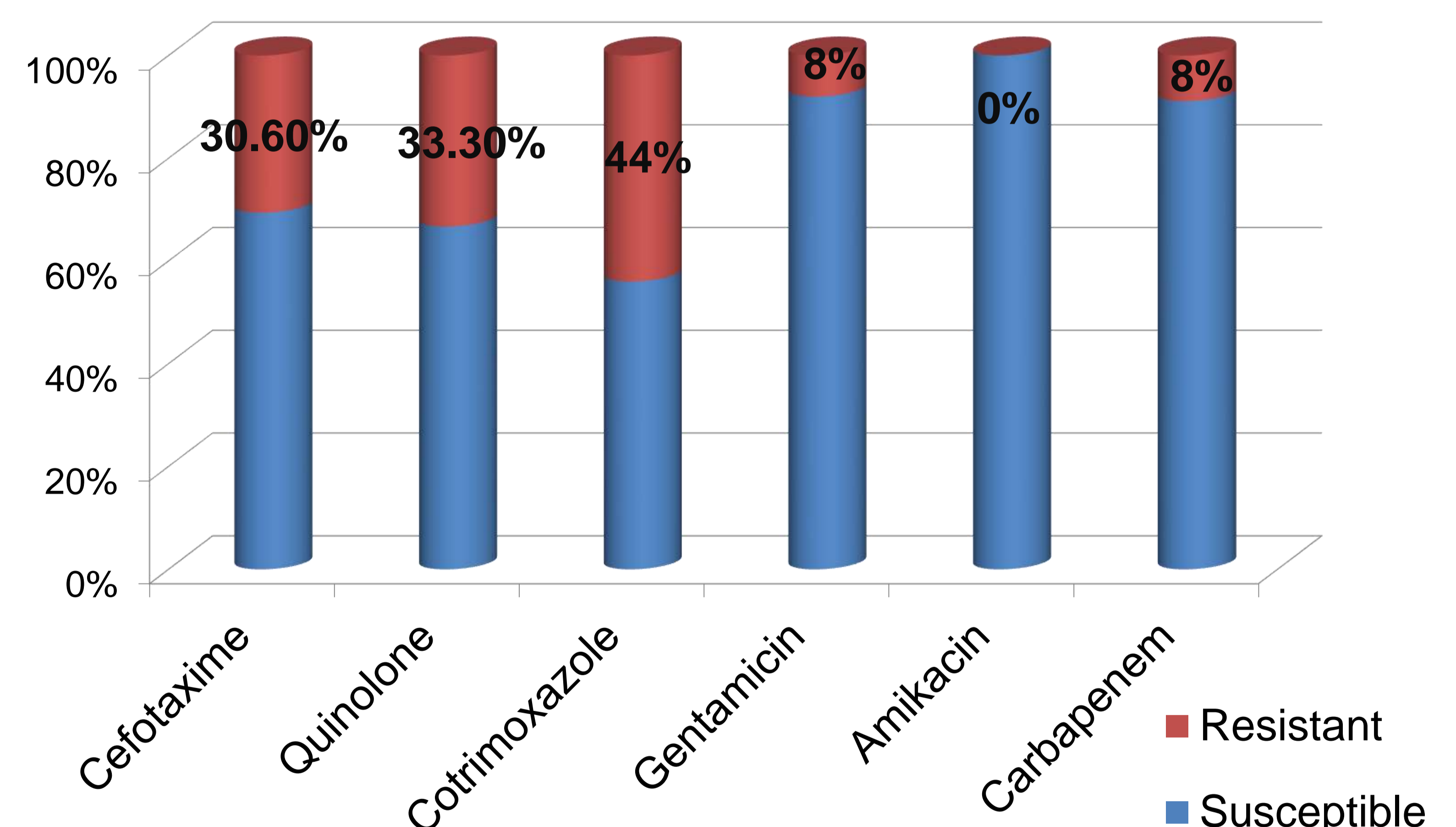
Table 1: Patients' characteristics

Main characteristics	%
Urinary tract anomalies	44.4%
Urolithiasis	23.4%
Urinary incontinence	7.5%
Prostate hypertrophy	6.2%
Recent urological procedure	4.9%
Neurogenic bladder	4.9%
Solitary kidney	4.9%
History of previous UTI	20%
Diabetes	72.8%
Chronic renal failure	18.5%
Immunocompromised	3.7%

- Anterior antibiotic therapy: 28.3%
- Recent hospitalization: 14.8%
- Indwelling bladder catheter: 2.5%
- Colonization: 2.5%

Table 2: Distribution of isolated strains

Isolated strains	N (%)
<i>Escherichia coli</i>	49 (61.7%)
<i>Klebsiella pneumoniae</i>	18 (22.2%)
<i>Pseudomonas aeruginosa</i>	3 (3.7%)
<i>Enterobacter cloacae</i>	2 (2.5%)
<i>Enterobacter aerogenes</i>	1 (1,2%)
<i>Proteus mirabilis</i>	1 (1,2%)
<i>Enterococcus faecalis</i>	3 (3.7%)
<i>Candida</i>	3 (3.7%)



Antimicrobial resistance of isolated Gram negative bacilli

➔ **8% Carbapenem-resistant *Enterobacteriaceae***

Discussion- Conclusion

The elderly are at increased risk of UTI. Factors contributing to the higher incidence of UTI with age include urinary tract anomalies, urinary incontinence, decline in the immune system, malnutrition, functional disability and coexisting illnesses (1). This study confirms the emergence of resistant uropathogens in the elderly. Extensive use of antimicrobial agents in older people, as well as poor functional status have been implicated as likely reasons for harboring resistant flora (2). Streamlining the use of antibiotics is a cornerstone of the fight against this threatening phenomenon.

References:

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