**ABSTRACT**

The emergence of ESBL-producing K. pneumoniae has made it much more challenging to treat infections among ICUs. In Taiwan, several studies have detected ESBL-phenotypes, but molecular epidemiology has not been resolved.

**METHODS**

211 confirmed ESBL-producing KPN isolates from 24 Taiwan centers were analyzed by antibiogram (44 compounds), automated ribotyping (RT), PFGE and isoelectric focusing (IEF) tests. 4, from July 1998 through June 2000. These organisms were analyzed by antibiogram (44 compounds), automated ribotyping (RT), PFGE and isoelectric focusing (IEF). MICs were generated with the CTX-M enzyme series (previously observed in Taiwan).

- Co-resistance to amikacin (99% R) and amikacin (63% R).
- The antibiogram was designated x or y or z according to MIC (µg/mL): 0.2 ≤ cMIC ≤ 1, ≤ 0.125 ≤ cMIC < 0.2, ≤ 0.0625 ≤ cMIC < 0.125.

**RESULTS**

- Generally, resistance to amikacin or carbenicillin was more prominent than cefotaxim- or ceftazidime-resistant KPN isolates.
- For all ESBL-producing isolates, the carbapenem resistance phenotype was the most active (99% R) enzyme.
- The MICs for pI 5.4 were 5.6, 8.2, 8.4, 8.6 and 7.9 for AK (5.4, 7.6, 7.9, 8.2, 8.4) and AK plus clavulante.
- Co-resistance to amikacin was common. Gentamicin 96% R, tetracycline 94% R and amikacin 92% R.
- The enzymes with pIs of 5.4 and/or 7.6 may be contained.

**CONCLUSIONS**

- We found 82 (38%) isolates had a CTM-M phenotype characteristic of high MICs for amikacin and amikacin but less MIC for amikacin. As we see, CTM-M type isolates have become more prevalent among isolates isolated in Taiwan. Among these isolates with CTM-M phenotype, 38 were selected for analysis, which revealed that 23 contained pII 5.4 and/or 7.6 and 3 contained pI 5.8 in Table 4.

**SELECTED REFERENCES**


**INTRODUCTION**

Klebsiella pneumoniae (KPN) strains producing various types of extended-spectrum b-lactamases (ESBL) enzymes have increased and spread worldwide. The frequency of KPN with ESBL-related resistance (ESBL) has also progressively increased to a level of 24% in Taiwan. Generation of ESBL-producing KPN isolates has been clinically detected ESBL phenotypes, but molecular epidemiology has not been systematically resolved.

**METHODS**

MICs were generated with the CTX-M enzyme series (previously observed in Taiwan).

**RESULTS**

- The antibiogram was designated x or y or z according to MIC (µg/mL): 0.2 ≤ cMIC ≤ 1, ≤ 0.125 ≤ cMIC < 0.2, ≤ 0.0625 ≤ cMIC < 0.125.

**CONCLUSIONS**

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