Molecular characteristics of extended-spectrum-beta-lactamase-producing *Escherichia coli* isolates causing bacteremia in a Regional Hospital

Chih-Ming Chen[1], Jyun-Yi Li[2], Se-Chin Ke[3] and Lii-Tzu Wu[2]

[1]Division of Infectious Disease, Department of Internal Medicine, Tungs' Taichung MetroHarbor Hospital,Taichung, [2]The Institute of Medical Science and Department of Microbiology, China Medical University; Taiwan, Taiwan, R.O.C. [3]Infection Control Office, Tungs' Taichung MetroHarbor Hospital, Taiwan,

陳志銘[1] 李俊儀[2] 柯瑟琴[3] 吳禮字[2]

Strains of *Escherichia coli* were isolated from patients with bacteremia during 2008 to 2009 from a middle Taiwan hospital. These strains were resistant to ampicillin, gentamicin, amikacin and cefotaxime, while most of them were highly susceptible to ceftazidime (MIC ≤ 0.5 μg/ml) and meropenem(MIC ≤ 0.5 μg/ml). Forth-one (43.2%) out of a total 95 clinical isolates had a greater than four-fold decrease in cefotaxime MIC in the presence of clavulanic acid. Therefore, these strains were speculated to produce extended-spectrum class A β-lactamases. By PCR and nucleotide sequencing, we detected the presence of CTX-M-3, and CMY-2 in 1 strain, CTX-M-3, CTX-M-14, and CMY-2 in 3 strains, CTX-M-14 and CMY-2 in 24 strains and CTX-M-14 only in 9 strains. These multiple drug resistance genes were shown to be transferred by the conjugative plasmid. Based on PCR, the sequence of the class I integron with gene cassette in 33 strains and *tnpA* transposase gene of the insert sequence ISEcp1 in some strains were also detected. In this study, the presence of *Escherichia coli* strains with high percentage CTX-M-14 of extended-spectrum β-lactamases (ESBLs) was first demonstrated in a regional hospital.

※ 論文性質：

□ AM (應用微生物) □ BM (基礎微生物)

■CM (臨床微生物) □ V (病毒)

※ 發表方式：□ Oral ■Poster

※ 發表作者：吳禮字 (必須至會場，文章劃線者)

※ 作者電話：(04)22053366-2169 ※手機：0919081334

※ 作者 E-mail：ltwu@mail.cmu.edu.tw

◎ 送出前請務必仔細校對，以免重複寄送造成送印檔案錯誤。