

中文題目：同時對 levofloxacin 及 trimethoprim/sulfamethoxazole 抗藥之嗜麥芽窄食單胞菌 (*Stenotrophomonas maltophilia*) 其危險因子與抗生素敏感型式分析

英文題目：Emergence of concurrent levofloxacin- and trimethoprim/sulfamethoxazole-resistant *Stenotrophomonas maltophilia*: risk factors and antimicrobial sensitivity pattern analysis from a single medical center in Taiwan

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Background: The emergence of concurrent levofloxacin- and trimethoprim/sulfamethoxazole (TMP/SMX)-resistant *Stenotrophomonas maltophilia* (LTSRSM) in Taiwan is becoming a serious problem, but clinical data analysis on this has not been reported.

Methods: A matched case-control-control study was conducted to investigate risk factors for LTSRSM occurrence in hospitalized patients. For patients with LTSRSM infection (the case group), two matched control groups were used: control group A with LTSSSM infection and control group B without *S. maltophilia* infection. Besides, tigecycline, ceftazidime, cefepime, ciprofloxacin, gentamycin, amikacin, and colistin susceptibilities in collected LTSRSM and levofloxacin- and TMP/SMX-susceptible *S. maltophilia* (LTSSSM) isolates were compared.

Results: From January 2014 to June 2016, 129 LTSRSM from cultured 1213 *S. maltophilia* isolates (10.6%) were identified. A total of 107 LTSRSM infected patients paired with 107 LTSSSM-, and 107 non-*S. maltophilia*-infected ones were included. When compared with control group A, previous fluoroquinolone and TMP/SMX use was found to be independently associated with LTSRSM occurrence. When compared with control group B, mechanical ventilation, cerebrovascular disease, and previous fluoroquinolone use were risk factors for LTSRSM occurrence. Eighty-five LTSRSM and 85 LTSSSM isolates were compared for antibiotic susceptibilities; the resistance rates and minimum inhibitory concentrations of tigecycline and ceftazidime were significantly higher for LTSRSM than for LTSSSM isolates.

Conclusion: The emergence of LTSSSM showing cross resistance to tigecycline and ceftazidime would further limit current therapeutic options. Cautious fluoroquinolone and TMP/SMX use may be helpful to limit such high-level resistant strains of *S. maltophilia* occurrence.