

## **Patients with Chronic Renal Failure and Risk of Developing Erythema Multiforme, Stevens-Johnson Syndrome, Toxic Epidermal Necrolysis Disease Spectrum.**

### **慢性腎衰竭與多形性紅斑、史蒂芬氏強生症候群及毒性表皮壞死的危險性**

*Tzu-Chun Lin, MD<sup>1</sup>; Po-Yuan Wu, MD<sup>1</sup>; I-Chen Tsai, MD<sup>1</sup>; Chih-Jung Hsu, MD<sup>1</sup>; Pei-Chun Chen, PhD, MSPH<sup>2</sup>; Fung-Chang Sung, PhD, MSPH<sup>2</sup>*

<sup>1</sup>*Department of Dermatology, China Medical University and Hospital*

<sup>2</sup>*Department of Public Health, China Medical University and Hospital*

林子鈞<sup>1</sup> 吳伯元<sup>1</sup> 蔡易臻<sup>1</sup> 許致榮<sup>1</sup> 陳培君<sup>2</sup> 宋鴻樟<sup>2</sup>

<sup>1</sup> 中國醫藥大學暨附設醫院皮膚科

<sup>2</sup> 中國醫藥大學公共衛生學院

**BACKGROUND:** Chronic renal failure (CRF) may alter drug metabolism and disposition and increase the risk of adverse drug reactions.

**OBJECTIVES:** This cohort study investigated whether CRF further increases the risk of erythema multiforme, Stevens-Johnson syndrome and toxic epidermal necrolysis (EM/SJS/TEN) disease spectrum.

**METHODS:** This was a retrospective cohort study. We used a claims dataset of Taiwan's National Health Insurance to identify a cohort of 9412 patients with CRF newly diagnosed in 1999-2002. A group of comparison control subjects was randomly selected at a ratio of 8:1 (n = 75296) from all insurance enrollees free from renal failure-related conditions. The incidence rates of EM/SJS/TEN were estimated by the end of 2008.

**RESULTS:** The incidence rate of EM/SJS/TEN was 3.5 times higher in patients with CRF than in the comparison group (6.31 vs. 1.75 per 10,000 person-years). The multivariate-adjusted models showed that CRF was associated with increased risk of developing EM/SJS/TEN (hazard ratio (HR)=2.31, 95% confidence interval [CI]=1.47-3.64). CRF-associated risk increased with age, but not for those > 75 years old. Women with CRF had greater risk of EM/SJS/TEN than their male counterparts as compared with men without CRF. In addition, CRF patients with comorbidity of epilepsy increased the HR of EM/SJS/TEN to 3.99 (95% CI = 1.23-12.90). The comorbidity of gout also enhanced the HR of EM/SJS/TEN to 3.20 (95% CI = 1.82-5.64).

**CONCLUSIONS:** Patients with CRF are at an elevated risk to develop EM/SJS/TEN. The comorbidity of epilepsy and gout increased the risk further independently.

背景：慢性腎衰竭可能會改變藥物代謝和體內動向及增加藥物不良反應的風險。

目的：此世代研究調查慢性腎衰竭是否進一步增加多形性紅斑、史蒂芬氏強生症候群及毒性表皮

壞死疾病的危險性。

方法：這是一項回顧性世代研究。我們使用中央健康保險局的保險資料庫找出在 1999 年-2002 年共 9412 位新診斷慢性腎衰竭的病人。另外以 8:1 的比例隨機抽取出 75296 位沒有腎衰竭相關疾病的比較組。評估到 2008 年底多形性紅斑、史蒂芬氏強生症候群及毒性表皮壞死疾病的發生率。

結果：慢性腎衰竭的病人和對照組比較有 3.5 倍高的機率得到多形性紅斑、史蒂芬氏強生症候群及毒性表皮壞死疾病。慢性腎衰竭相關的風險會隨著年齡而增加，但除了大於 75 歲的病人。慢性腎衰竭的女性比慢性腎衰竭的男性有較高的風險。除此以外，慢性腎衰竭患者若同時罹患癲癇會增加多形性紅斑、史蒂芬氏強生症候群及毒性表皮壞死疾病的危險率到 3.99。慢性腎衰竭患者若同時罹患痛風危險率也會增加到 3.20。

結論：慢性腎衰竭患者在發展多形性紅斑、史蒂芬氏強生症候群及毒性表皮壞死疾病有增加的風險。同時罹患癲癇和痛風也會進一步增加風險。