

中文題目：膽固醇和中風病患 30 天死亡率的相關

英文題目：Cholesterol levels are associated with 30-day mortality from ischemic stroke in dialysis patients

作者：王怡寬<sup>1,2</sup>，劉崇祥<sup>3</sup>，鄭建興<sup>4</sup>，許世斌<sup>5</sup>，陳志弘<sup>6,7</sup>，連立明<sup>8</sup>，林瑞泰<sup>9</sup>，陳安芝<sup>10</sup>，林慧娟<sup>11</sup>，紀心怡<sup>12</sup>，賴達昌<sup>13</sup>，孫瑜<sup>14</sup>，李少白<sup>15</sup>，宋昇峰<sup>16</sup>，陳柏霖<sup>17</sup>，李俊泰<sup>18</sup>，江翠如<sup>19</sup>，林信光<sup>20</sup>，莫之欣<sup>21</sup>，Herry Ma<sup>22</sup>，溫啟邦<sup>23</sup>，宋鴻樟<sup>1\*</sup>，許重義<sup>1,3</sup>，台灣腦中風登錄研究群

服務單位：中國醫藥大學附設醫院腎臟科<sup>1</sup>，中國醫藥大學醫學院<sup>2</sup>，中國醫藥大學附設醫院神經部<sup>3</sup>，台大醫院神經部<sup>4</sup>，義大醫療財團法人義大醫院神經科<sup>5</sup>，國立成功大學附設醫院神經部<sup>6</sup>，國立成功大學附設醫院腦中風中心<sup>7</sup>，新光吳火獅紀念醫院神經內科<sup>8</sup>，高雄醫學大學附設中和紀念醫院神經科<sup>9</sup>，中山醫學大學附設醫院神經內科<sup>10</sup>，奇美醫院神經內科<sup>11</sup>，彰化秀傳醫院神經科<sup>12</sup>，振興醫療財團法人振興醫院神經內科<sup>13</sup>，行天宮醫療志業醫療財團法人恩主公醫院神經科<sup>14</sup>，亞東紀念醫院神經內科<sup>15</sup>，嘉義基督教醫院神經內科<sup>16</sup>，臺中榮總神經醫學中心<sup>17</sup>，三軍總醫院腦神經內科<sup>18</sup>，國泰綜合醫院神經內科<sup>19</sup>，佛教慈濟綜合醫院神經內科<sup>20</sup>，中國醫藥大學附設醫院健康資料管理辦公室<sup>21</sup>，Monash University, Melbourne<sup>22</sup>，國衛院衛生政策研發中心<sup>23</sup>

**Background:** End-stage renal disease patients on dialysis are at elevated risks of stroke and death from stroke. We investigated the impact of serum cholesterol levels on ischemic stroke mortality in dialysis patients.

**Methods:** From the Taiwan Stroke Registry data, we identified 46770 ischemic stroke cases, including 1101 dialysis patients and 45669 non-dialysis patients from 2006 to 2013. Cox proportional hazards regression models were used to evaluate the hazard ratio (HR) of 30-day mortality after ischemic stroke by serum total cholesterol levels on admission.

**Results:** Overall, the 30-day mortality was 1.46-fold greater in the dialysis group than in the non-dialysis group (1.75 vs. 1.20 per 1000 person-days). The mortality rates were 1.64, 0.62, 2.82, and 2.23 per 1000 person-days in dialysis patients with serum total cholesterol levels of < 120 mg/dL, 120-159 mg/dL, 160-199 mg/dL, and  $\geq$  200 mg/dL, respectively. Compared to dialysis patients with serum total cholesterol levels of 120-159 mg/dl, the corresponding adjusted HRs of mortality were 4.18 (95% CI = 1.01-17.3), 7.82 (95% CI = 1.96-31.2) and 6.85 (95% CI = 1.59-29.6) for those with cholesterol levels of < 120 mg/dl, 160-199 mg/dl and  $\geq$  200 mg/dl, respectively. For non-dialysis patients, there was no significant association between 30-day death risk and serum total cholesterol levels after adjustment of age, comorbidities, and stroke severity.

**Conclusions:** Dialysis patients with serum total cholesterol levels of  $\geq$  160 mg/dl or < 120 mg/dl on admission are at an elevated hazard of 30-day mortality after ischemic stroke.