



## Two Coordination Polymers: Treatment Effect on Acute Kidney Injury by Reducing Urine Nagl Content

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**SUMMARY.** In the current study, two new coordination polymers with the chemical formulae of [Co(pta)(H<sub>2</sub>O)]<sub>n</sub> (**1**) and {[Ni(pta)]·H<sub>2</sub>O}<sub>n</sub> (**2**) (H<sub>2</sub>pta = 2-(4-pyridyl)-terephthalic acid), were synthesized under solvothermal conditions. The treatment activity of compounds **1** and **2** on the acute kidney injury in patients with acute cerebral hemorrhage was evaluated. First of all, the enzyme linked immunosorbent assay (ELISA) detection was used to detect the content of the Nagl in the urine after indicated treatment. Next, the real time reverse transcription-polymerase chain reaction (RT-PCR) was performed and the inflammatory genes expression in the glomerular epithelial cells was measured.

**RESUMEN.** En este estudio se sintetizaron en condiciones de solvotermia dos nuevos polímeros de coordinación con las fórmulas químicas de [Co(pta)(H<sub>2</sub>O)]<sub>n</sub> (**1**) y {[Ni(pta)] H<sub>2</sub>O}<sub>n</sub> (**2**) (H<sub>2</sub>pta = 2- (4-ácido piridil)-tereftálico). Se evaluó la actividad de tratamiento de los compuestos **1** y **2** sobre la lesión renal aguda en pacientes con hemorragia cerebral aguda. En primer lugar, la detección del ensayo inmunoabsorbente ligado a enzimas (ELISA) se utilizó para detectar el contenido de Nagl en la orina después del tratamiento indicado. A continuación, se realizó la reacción en cadena de la polimerasa de transcripción inversa en tiempo real (RT-PCR) y se midió la expresión de genes inflamatorios en las células epiteliales glomerulares.

**KEY WORDS:** Coordination polymer, acute kidney injury, glomerular epithelial cells

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