

Two Mixed-Ligand Coordination Polymers: Treatment and Nursing Application Values on Alzheimer's Disease

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SUMMARY. In the present study, two new Co(II)-containing coordination polymers (CPs) with the chemical formulae of $[\text{Co}_2(\text{pbtrz})(\text{btca})]_n \cdot 4n\text{H}_2\text{O}$ (**1**) (pbtrz = 1,3-bis(1,2,4-triazol-1-yl)-propane & H_4btca = benzene-1,2,4,5-tetracarboxylic acid) and $[\text{Co}(\text{btca})_{0.5}(\text{dib})] \cdot \text{H}_2\text{O}$ (**2**) (dib = (*E*)-1,4-di(1*H*-imidazol-1-yl)but-2-ene) have been successfully prepared under the similar reaction conditions by using different N-donor co-ligands. Their treatment and nursing application values on Alzheimer's disease was evaluated and the related mechanism was explored at the same time. Firstly, the volume and brain weight of the brain was measured after the compound treatment. In addition to this, the ELISA detection was conducted and the content of the amyloid (A β) in the cerebrospinal fluid was detected.

RESUMEN. En el presente estudio, dos nuevos polímeros de coordinación (CP) que contienen Co(II) con las fórmulas químicas de $[\text{Co}_2(\text{pbtrz})(\text{btca})]_n \cdot 4n\text{H}_2\text{O}$ (**1**) (pbtrz = 1,3-bis(1,2,4-triazol-1-il)-propano & H_4btca = ácido benceno-1,2,4,5-tetracarboxílico) y $[\text{Co}(\text{btca})_{0.5}(\text{dib})] \cdot \text{H}_2\text{O}$ (**2**) (dib = (*E*)-1,4-di(1*H*-imidazol-1-il)but-2-eno), se han preparado con éxito en condiciones de reacción similares utilizando diferentes co-ligandos de donantes de N. Se evaluaron sus valores de tratamiento y aplicación de enfermería en la enfermedad de Alzheimer y al mismo tiempo se exploró el mecanismo relacionado. En primer lugar, se midió el volumen y el peso cerebral después del tratamiento con compuesto. Además de esto, se realizó la detección ELISA y se detectó el contenido de amiloide (A β) en el líquido cefalorraquídeo.

KEY WORDS: Alzheimer's disease, coordination polymers, ELISA detection.

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