

La(III) Coordination Polymer: Therapeutic Effect and Clinical Nursing Application on Myocardial Infarction

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SUMMARY. A new lanthanide coordination polymer (Ln-CP) has been successfully prepared from lanthanide salt and a zwitterionic common ligand, under hydrothermal conditions. The as-prepared cationic La homometallic framework with two-dimensional architecture, designated as $[\text{La}(\text{BCBI})(\text{NO}_3)_2(\text{H}_2\text{O})]_n$, HBCBI = 1,3-bis(carboxymethyl)benzimidazole zwitterion, has been characterized by X-ray single-crystal diffraction, infrared spectroscopy, elemental and thermogravimetric analyses. For the treatment of acute myocardial infarction (AMI), the levels of sFas and sFasL in plasma after compound treatment was determined with ELISA detection kit. In addition to this, the relative expression of caspase-8 was evaluated with western blotting assay.

RESUMEN. Se ha preparado con éxito un nuevo polímero de coordinación de lantánidos (Ln-CP) a partir de la sal de lantánidos y un ligando común de ion híbrido, en condiciones hidrotermales. La estructura catiónica homometallica preparada con arquitectura bidimensional, designada como $[\text{La}(\text{BCBI})(\text{NO}_3)_2(\text{H}_2\text{O})]_n$, HBCBI = zwitterión 1,3-bis (carboximetil) bencimidazol, se ha caracterizado por difracción monocristalina de rayos X, espectroscopia infrarroja, análisis elemental y termogravimétrico. Para el tratamiento del infarto agudo de miocardio (IAM), se determinaron los niveles de sFas y sFasL en plasma después del tratamiento con el compuesto con el kit de detección ELISA. Además de esto, la expresión relativa de caspasa-8 se evaluó con un ensayo de transferencia Western.

KEY WORDS: coordination polymer, ELISA, myocardial infarction, western blotting assay.

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