

## Assembly of Two Cu(II) Coordination Complexes: Treatment Activity on Acute Pancreatitis Combined with Abdominal Infection

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**SUMMARY.** The Schiff base binuclear Cu(II) complexes,  $[\text{Cu}_2(\text{L})_2 \cdot (\text{H}_2\text{O})_2] \cdot 2\text{DMF}$  (**1**) and its coordination polymer  $[\text{Cu}_2(\text{L})_2 \cdot (4,4'\text{-bpy})_2]_n$  (**2**) ( $\text{H}_2\text{L} = 3\text{-}[(5\text{-chloro-2-hydroxy-benzylidene)-amino]-4\text{-hydroxy-chromen-2-one}$ ,  $4,4'\text{-bpy} = 4,4'\text{-bipyridine}$ ), were synthesized under the same experimental condition without or with the auxiliary ligand  $4,4'\text{-bpy}$ , respectively. Furthermore, the application values of compounds **1** and **2** on the acute pancreatitis combined with abdominal infection induced by the catecholamine vasoactive drugs was evaluated and the mechanism was explored at the same time. The inflammatory response levels in the acute pancreatitis combined with abdominal infection after compound treatment was assessed by measuring the content of inflammatory cytokines with enzyme linked immunosorbent assay (ELISA) assay. The immunoprecipitation turbidimetric method was conducted to determine the content of C-reactive protein in the plasma.

**RESUMEN.** Los complejos de Cu (II) binuclear de base de Schiff,  $[\text{Cu}_2(\text{L})_2 \cdot (\text{H}_2\text{O})_2] \cdot 2\text{DMF}$  (**1**) y su polímero de coordinación  $[\text{Cu}_2(\text{L})_2 \cdot (4,4'\text{-bpy})_2]_n$  (**2**) ( $\text{H}_2\text{L} = 3\text{-}[(5\text{-cloro-2-hidroxi-bencilideno)-amino]-4\text{-hidroxi-cromen-2-ona}$ ,  $4,4'\text{-bpy} = 4,4'\text{-bipiridina}$ ), se sintetizaron bajo la misma condición experimental sin o con el ligando auxiliar  $4,4'\text{-bpy}$ , respectivamente. Además, se evaluaron los valores de aplicación de los compuestos **1** y **2** sobre la pancreatitis aguda combinada con la infección abdominal inducida por los fármacos vasoactivos catecolaminas y al mismo tiempo se exploró el mecanismo. Los niveles de respuesta inflamatoria en la pancreatitis aguda combinados con la infección abdominal después del tratamiento con el compuesto se evaluaron midiendo el contenido de citocinas inflamatorias con un ensayo de ensayo inmunoabsorbente ligado a enzimas (ELISA). Para determinar el contenido de proteína C reactiva en el plasma se realizó el método turbidimétrico de inmunoproyección.

**KEY WORDS:** Coordination complexes, Schiff base ligand, crystal structures, acute pancreatitis

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