

Two Transition Metal Coordination Polymers: Anesthesia Activity During Hip Replacement Operation by Regulating Animal Blood Pressure Levels

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SUMMARY. Two new transition metal coordination polymers $[Zn_3(HCO_2)_2(dpa)_4(bpp)_3]_n$ (**1**, H₂dpa = diphenic acid, bpp = 1,3-bi(4-pyridyl)propane) and $\{[Co(dpa)(pedin)] \cdot 2.5H_2O\}_n$ (**2**, pedin = N,N'-(pentane-1,5-diyl)diisonicotinamide) have been successfully prepared by reaction of the corresponding metal salts with the H₂dpa ligand in the presence of different flexible dipyridylamide ligands. To study the effect of compounds combined with epidural anesthesia for hip replacement in this research, the following experiments were performed. Firstly, the hip replacement operation was carried out in mice, compounds were given with epidural anesthesia, the rate of anesthesia and animal survival rate was recorded and analyzed. Then, the blood pressure level of the mice was measured through the procession of the hip replacement operation.

RESUMEN. Dos nuevos polímeros de coordinación de metales de transición $[Zn_3(HCO_2)_2(dpa)_4(bpp)_3]_n$ (**1**, H₂dpa = ácido difenico, bpp = 1,3-bi(4-piridil)propano) y $\{[Co(dpa)(pedin)] \cdot 2.5H_2O\}_n$ (**2**, pedin = N,N'-(pentano-1,5-diil)diisonicotinamida) se han preparado con éxito por reacción de las sales metálicas correspondientes con el ligando H₂dpa en presencia de diferentes ligandos de dipiridilamida flexibles. Para estudiar el efecto de los compuestos combinados con anestesia epidural para el reemplazo de cadera en esta investigación, se realizaron los siguientes experimentos. En primer lugar, la operación de reemplazo de cadera se realizó en ratones, los compuestos se administraron con anestesia epidural, la tasa de anestesia y la tasa de supervivencia animal se registraron y analizaron. Luego, el nivel de presión arterial de los ratones se midió a través de la procesión de la operación de reemplazo de cadera.

KEY WORDS: anesthesia activity, coordination polymer, crystal structure.

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