

## Chemotherapeutic Agent Cisplatin: A Clinical Study for Evaluation of Dose Related Toxic Effects

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**SUMMARY:** Cisplatin is one of the chemotherapeutic agents used in different solid tumors like head and neck, lung, and ovarian cancers etc. It was an observational study carried out in a tertiary care hospital of Sindh, Pakistan to evaluate the toxic effects of cisplatin use. This study was performed in between October-2018 and September-2019. A total of 100 patients were enrolled in this study who were suffering from different carcinomas and were prescribed with Cisplatin as best treatment by their physicians. From 100 patients, 60% were male while 40% were female. The data was finalized on interview as well as patients laboratory investigations before and after use of Cisplatin. The sampling method for this study was non probability convenient. Different doses such as 50, 100, and 150 mg were prescribed by the physicians to these selected patients according to disease conditions. According to results obtained, it was concluded that nephrotoxicity cases were rare for those patients who were receiving 50 mg dose of cisplatin. A moderate electrolysis imbalance was observed to occur at doses of 50 mg, 100 mg, and 150 mg. The side effects were seen to increase as the chemotherapy cycles increased.

**RESUMEN:** El cisplatino es uno de los agentes quimioterapéuticos utilizados en diferentes tumores sólidos como el cáncer de cabeza y cuello, de pulmón y de ovario, etc. Fue un estudio observacional realizado en un hospital de atención terciaria de Sindh, Pakistán, para evaluar los efectos tóxicos del uso de cisplatino. Este estudio se realizó entre octubre de 2018 y septiembre de 2019. Se inscribió un total de 100 pacientes en este estudio que padecían diferentes carcinomas y sus médicos les recetaron cisplatino como el mejor tratamiento. De 100 pacientes, el 60% eran hombres mientras que el 40% eran mujeres. Los datos se finalizaron en la entrevista, así como en las investigaciones de laboratorio de los pacientes antes y después del uso de cisplatino. El método de muestreo para este estudio fue conveniente no probabilístico. Los médicos prescribieron diferentes dosis, como 50, 100 y 150 mg, a estos pacientes seleccionados de acuerdo con las condiciones de la enfermedad. De acuerdo con los resultados obtenidos, se concluyó que los casos de nefrotoxicidad eran raros para aquellos pacientes que estaban recibiendo dosis de 50 mg de cisplatino. Se observó que se producía un desequilibrio electrolítico moderado a dosis de 50 mg, 100 mg y 150 mg. Se observó que los efectos secundarios aumentaban a medida que aumentaban los ciclos de quimioterapia.

**KEY WORDS:** cisplatin, electrolytes imbalance, nephrotoxicity, ototoxicity, patients.

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