Poster 32: Cisplatin-induced ototoxicity in gynecologic malignancies

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Topic

Quality of Life/Palliative Care

Objectives

Cisplatin is a key chemotherapy for gynecologic malignancies, but its ototoxicity impacts patient quality of life. Guidelines for ototoxicity monitoring exist but are not standard practice. This study aims to determine compliance with ototoxicity monitoring at our institution, assess audiologic changes occurring during cisplatin therapy in patients with gynecologic malignancies, and evaluate the preventative/ototoxicity management measures taken based on audiology monitoring.

Methods

We conducted a retrospective cohort study of patients with gynecologic malignancies treated with cisplatin from May 2023 to September 2024 at a single institution. Data on demographics, clinical factors, and audiology were abstracted via chart review. Descriptive analyses, logistic regression, and Wilcoxon rank-sum tests were performed.

Results

Among 153 patients included in the final analysis, 71.9% were non-Hispanic white, with a mean age of 54.9; 24.2% had baseline otologic complaints. Cervical cancer was the most common diagnosis (56.3%), and 70.2% had stage III/IV disease. Cisplatin was used primarily for initial treatment (79.7%), with an average of 5.32 ± 2.67 cycles. Despite 81.7% being referred to audiology, only 55.6% had baseline audiograms and 16.3% had end-of-treatment (EOT) audiograms, with 95.8% of EOT audiograms being abnormal. However, only 12.9% had treatment holds and 4.4% had discontinuations due to ototoxicity. After adjusting for baseline age, race, starting dose, and cancer stage, an increased number of cisplatin cycles correlated with worsening otologic complaints (OR = 1.23; 95% CI = 1.05 - 1.49; p = 0.0146). Self-reported tinnitus and dizziness significantly worsened from baseline to EOT (p = 0.0002 and p = 0.0045, respectively). Tinnitus prevalence rose from 13.7% to 26.8%, while dizziness increased from 0.7% to 7.2% during treatment.

Conclusions

Despite routine audiology referrals for patients treated with cisplatin, baseline audiograms were conducted in only half of patients, with even fewer at EOT. Greater integration of audiologists during cisplatin treatment may enhance the quality of life of patients through measures such as provider education, noise conservation, hearing aids, and treatment modifications.