Ototoxicity rates in children receiving carboplatin studied

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(HealthDay) -- Retinoblastoma patients who are younger than 6 months of age at the start of carboplatin treatment experience a higher incidence of ototoxicity, according to a study published online Feb. 27 in the *Journal of Clinical Oncology*.

Ibrahim Qaddoumi, M.D., of the St. Jude Children's Research Hospital in Memphis, Tenn., and colleagues reviewed the results of audiologic tests for 60 patients with retinoblastoma who received front-line treatment with systemic carboplatin and vincristine according to either the St. Jude RET-3 protocol (23 patients) or best clinical management (37 patients). Three different ototoxicity grading systems were used.

The researchers found that 12 patients (20 percent) developed

ototoxicity at some point following initiation of treatment; ototoxicity resolved in two patients, leaving 10 patients (17 percent) with sustained hearing loss. Nine of these 10 patients had grade 3 or 4 ototoxicity. Ninety percent of the 10 patients with hearing loss were less than 6 months of age at the start of chemotherapy. Age at the start of chemotherapy was the only risk factor that significantly predicted sustained hearing loss, and younger age was associated with an increased incidence of hearing loss. The different ototoxicity grading systems showed good overall agreement for identifying otoxicity, and agreement was greatest between the Brock and Children's Cancer Group systems.

"Young patients with retinoblastoma who were treated with systemic carboplatin had a higher incidence of ototoxicity than previously reported," the authors write.

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