CONFERENCE ABSTRACT

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The incidence of ototoxicity in children receiving cisplatin in Hospital Pulau Pinang

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Abstract: Background: Since the establishment of oncology unit in Hospital Pulau Pinang, no study has been conducted to determine the incidence of ototoxicity among pediatric patients receiving cisplatin as part of their chemotherapy treatment. The risk factor that was believed to result to ototoxicity events was reported inconsistently. In one study, the prevalence rate of cisplatin-induced sensorineural hearing loss ranging from 10% to 85% of children studied. This study aimed to determine the incidence of cisplatin-induced ototoxicity (OTX) among pediatric patients in Hospital Pulau Pinang (HPP) and to determine the association of risk factors of cisplatin induced ototoxicity (OTX) among pediatric patients in Hospital Pulau Pinang (HPP). Methodology: A retrospective study was conducted on a total of 68 pediatric patients. The incidence of ototoxicity between September 2009 and August 2015 was determined. The association between the ototoxicity incidence and age, gender, cumulative dose and type of cancer were analyzed using Chi-square test. Results: A total of 26 patients which fulfilled the inclusion criteria were included in the study. The incidence of ototoxicity was 53.8% (n = 14). There were no significant association between age when starting cisplatin ($\chi^2 = 7.066, p = 0.07$), gender ($p = 0.431$) and type of cancer ($\chi^2 = 2.547, p = 0.467$) with the hearing status of the patient. There was a significant association between cumulative doses of cisplatin with hearing status of the patients ($p<0.05$). Conclusion: The incidence of ototoxicity is alarming among pediatrics receiving cisplatin. Hearing assessment should be conducted as per chemotherapy protocol in the attempt to serve as early efforts to minimize ototoxicity induced by cisplatin. NMRR ID: NNMR-15-1565-26151.

Keywords: cisplatin; ototoxicity; pediatrics; risk factors


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