Kajian Ototoksisitas Kanamisin pada pasien TB RO di Rumah Sakit Islam Cempaka Putih Jakarta = Kanamycin ototoxicity study in drug-resistant tuberculosis patients at Cempaka Putih Islamic Hospital, Jakarta

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Abstrak

Pendahuluan : Penyakit tuberkulosis resisten obat (TB-RO) merupakan masalah kesehatan di seluruh dunia, termasuk Indonesia. Kanamisin, salah satu obat suntik lini ke dua dalam regimen terapi TB RO berpotensi menimbulkan efek samping ototoksik. Penelitian ini bertujuan mengevaluasi kejadian ototoksisitas kanamisin pada pasien TB RO dan pengaruh diabetes melitus, usia, jenis kelamin, riwayat streptomisin, dosis kanamisin terhadap kejadian tersebut.
Metode : Penelitian ini dilakukan secara kohort retrospektif menggunakan rekam medis pasien TB RO di Poliklinik TB RO RS Islam Cempaka Putih Jakarta, yang ikut dalam manajemen terpadu pengendalian TB resistan obat periode Mei 2016 - November 2018. Kriteria inklusi adalah pasien terdiagnosis TB RO dan mendapat kanamisin injeksi sebagai bagian dari regimen terapi TB. Kriteria eksklusi usia pasien kurang dari 18 tahun, rekam medis tidak lengkap atau sulit dibaca, menderita HIV, atau sudah menderita gangguan pendengaran tipe sensory neural hearing loss sebelum terapi kanamisin. Sampel adalah semua pasien yang memenuhi kriteria inklusi dan tidak memiliki kriteria eksklusi. Dilakukan kajian hubungan kejadian ototoksisitas dengan komorbid DM, usia, jenis kelamin, dosis kanamisin, riwayat penggunaan streptomisin, dan onset efek samping kanamisin.
Hasil : Dari 164 penderita TB RO, 72 orang (43,9%) di antaranya mendapat kanamisin injeksi dan 23 pasien (32%) mengalami ototoksik. Pada uji regresi logistik ganda, jenis kelamin pria lebih sedikit mengalami ototoksisitas (OR 0,323, 95%CI 0,111-0,939, p= 0,38). Dari total 23 pasien yang mengalami ototoksisitas, 21 di antaranya (91,3%) terjadi dalam 6 bulan pertama pemberian kanamisin.
Kesimpulan : Kejadian ototoksik pasien TB RO karena kanamisin tidak dipengaruhi oleh komorbid DM, usia, dosis kanamisin dan riwayat penggunaan streptomisin sebelumnya. Pada pasien TB RO yang mendapat kanamisin injeksi dengan variabel penyakit penyerta DM dan usia yang sama, kejadian ototoksik pada perempuan tiga kali lebih besar dibandingkan laki-laki, dan sebagian besar terjadi dalam enam bulan pertama penggunaan kanamisin.
.....Introduction: Drug resistant tuberculosis (DR-TB) is a noteworthy health problem throughout the world, including Indonesia. Kanamycin, one of the second line drugs in the DR-TB therapy regimen can cause ototoxicity, may lead to irreversible hearing loss. This study aimed to evaluate the incidence of kanamycin ototoxicity in DR-TB patients and the effect of diabetes mellitus (DM), age, sex, streptomycin history, and dose of kanamycin on this event.
Methods: This is a retrospective cohort study, using medical records of DR-TB patients at Cempaka Putih Islamic Hospital, Jakarta, who participated in the integrated management of DR- TB control in the period May 2016 - November 2018. Inclusion criteria were patients diagnosed with DR-TB and kanamycin injection as part of the DR-TB therapy. Exclusion criteria are patients with age less than 18 years, had incomplete or difficult to read medical records, suffer from HIV, or from sensory neural hearing loss at base

line were excluded. All patients who met the inclusion criteria and did not met the exclusion criteria. The association ototoxicity between DM, age, sex, kanamycin dose and history of streptomycin use with ototoxicity were evaluated using multiple logistic regression analysis, and the onset of kanamycin side effects were recorded.
Results: Of 164 DR-TB patients, 72 people (43.9%) received kanamycin injection and 23 patients (32%) had ototoxic. The multiple logistic regression analysis show that men were associated with ototoxicity compared to women (OR 0.323, 95% CI 0.111-0.939, p: 0.038). There were no significant association between DM comorbidity, age, previous use of streptomycin, and kanamycin dose with ototoxicity. Of the total 23 ototoxicity events, 21 of them (91.3%) occurred within the first 6 months of kanamycin therapy.
Conclusion: Ototoxic event in DR-TB patients who received kanamycin were not affected by DM comorbidity, age, dose of kanamycin and previous use streptomycin. Ototoxic events in women were three times greater than men compared to men, and mostly occur during in the first six months of use of kanamycin.