Oscillopsia is an illusion of an unstable vision causing the perception of to-and-fro movement of the environment. It is most commonly idiopathic. Aminoglycosides administration such as streptomycin generating toxic metabolites can cause oscillopsia. We report a case of a 36 years old Malay female with positive Mycobacterium tuberculosis polymerase chain reaction (PCR) who developed oscillopsia during the streptomycin administration. We discussed the approach in managing this case.

Introduction
Oscillopsia is an illusion of an unstable vision causing the perception of to-and-fro movement of the environment. It is the relationship between the physiological mechanism movements of the eyes and a stable visual perception [1]. Oscillopsia can be caused by bilateral ocular instability or bilateral impaired vestibulo-ocular reflex [2]. Ocular instability can be due to impairment of the ocular motor system that maintain ocular stability and lead to permanent oscillopsia. Whereas, abnormal hyperactivity in the peripheral ocular motor or vestibular system will lead to paroxysmal oscillopsia [2]. Aminoglycosides are known to cause ototoxicity.

Case Report
A 36-year-old Malay female with underlying smear negative pulmonary tuberculosis (PTB), thyrotoxicosis and bronchial asthma complaining of giddiness. The giddiness started whilst patient on tuberculosis medication in which for 3 months duration. She described visual disturbance in which objects in the visual field appear to oscillate when walking. It lasted for few minutes during waking. It was not related to movement or change in posture. She had no hearing loss, tinnitus, otalgia or otorhea. No previous history of trauma to the head. No other neurological deficit.

She has been diagnosed with pulmonary tuberculosis following her sputum was positive for mycobacterium tuberculosis polymerase chain reaction (PCR). Subsequently she was prescribed Tablet AKURIT-4 3 tablets daily in which consists of Isoniazid 225mg, Rifampicin 450mg, Pyrazinamide 1.2g and Ethambutol 825mg. On examination, there was no nystagmus and her gait was normal. The cerebellar’s and fistula test were negative. Romberg’s sign was negative and Uttenberger’s test was equivocal. The Dix Hallpike’s and head thrust test was negative. On examination of the ears revealed normal findings. Rinne’s test were positive on bilateral ears and Weber’s test centralize. Examination of the neck and nose were unremarkable. Pure tone audiometry was normal hearing with tympanometry type A bilaterally. High resolution computed tomography (HRCT) of temporal bone was done revealed no evidence of semicircular canal or vestibule deformance. There is presence of high riding left jugular bulb (Figure 1). Magnetic resonance imaging (MRI) of internal acoustic meatus was performed with normal findings. No mass seen in bilateral cerebellopontine angle. Noticed presence of short segment stenosis (0.3cm) in the petrous part of left internal carotid artery (Figure 2). Therefore, computed tomography angiogram was performed and confirmed no evidence of carotid artery stenosis. She complained of having nausea and vomiting episodes during the initial drugs administration. Isoniazid was stopped and changed to Intramuscular Streptomycin 500mg 3 times a week with Tablet Ritampicin 300mg daily, Tablet Ethambutol 400mg daily. Capsule Ciprofloxacin 250mg twice daily and Tablet Pyrazinamide 500mg daily. She completed intensive phase for six months and then continued with Tablet Pyrazinamide 500mg daily and Tablet Ritampicin 300mg daily for continuation phase of 3 months. Due to intolerant to the side effects of anti-tuberculosis drugs, her treatment was completed after a year. Patient was treated as drug induced oscillopsia and started on Tablet Betahistine 24 milligram twice daily, Tablet Neurobion 200 milligram twice daily, Tablet Prochlorperazine 5 milligram when necessary. She was also referred to physiotherapy for vestibular rehabilitation. Her symptoms had improved after the vestibular rehabilitation.

Discussion
Bilateral vestibulopathy (BVP) is a chronic vestibular syndrome. Patients usually describe as head or body movement-induced blurred vision or oscillopsia [3]. The diagnosis of BVP is based on the history, bedside examination and investigation. Its major cause is idiopathic which account about 51 % of cases studies by Hain et al, 2013. Second most common aetiology is the administration of aminoglycosides such as gentamicin or streptomycin causing formation of toxic metabolite [4]. Other causes are bilateral Meniere’s disease, bacterial meningitis (infection), autoimmune inner ear disease, which usually affects both vestibular function and hearing, neoplasms, traumas or malformations. In this case, the administrative of streptomycin as anti-tuberculosis drug causing the oscillopsia. Streptomycin is primarily vestibulotoxic [5] by causing moderate to severe deterioration in utricule, saccule and cristae ampullaris [6]. Diagnosing BVP can be difficult often under- or misdiagnosed. Currently, many different diagnostic tests are used for vestibular evaluation, such as the caloric test, rotatory chair tests, (video) head impulse test (HIT), vestibular-evoked myogenic potentials (VEMP), dynamic visual acuity test (DVA), etc [7]. However, at this moment, no diagnostic standards regarding interpretation and implementation of vestibular test are available [7]. Other than vestibular tests, many other tests, such as cerebral imaging, audiometry, and blood tests, can be used in the diagnostic process. The tests do not evaluate the vestibular function and are mainly used to determine the aetiology of BVP or coexisting problems [8].

The underlying causes of bilateral vestibular loss need to be eliminated or symptomatically treated, for example by stopping aminoglycosides whenever possible. In this case, streptomycin was not stopped during the presentation in view of her tuberculosis. All patients should be informed about possible side-effects prior to starting treatment with aminoglycosides, so that they can directly report to the clinician if this symptom presence. There is evidence that physiotherapy, which can foster central vestibular compensatory mechanisms [9] helps to control symptoms. It is recommended that physiotherapy is provided by an expert specialised in vestibular loss. The patient condition in this case had improved since vestibular rehabilitation had started.

Conclusions
Bilateral vestibulopathy causing oscillopsia is often under- or misdiagnosed. Thorough history and bedside examinations help to diagnose this condition. Other lab investigations help to exclude other pathological method. Vestibular rehabilitation is the main therapy in this condition apart from treating the aetiologies. Streptomycin should be used in caution in every condition apart from treating the aetiologies.

References