Initial Outcome of Intravitreal Anti Vascular Endothelial Growth Factor (Anti-Vegf) at National Eye Centre (NEC), Kaduna

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Introduction: The advent of intravitreal anti vascular endothelial growth factors has changed the course of various retinal diseases. Common indications include neovascular age-related macular degeneration (ARMD), diabetic retinopathy, retinal vein occlusions (RVO), and retinopathy of prematurity.[1-3]Commonly used anti VEGFs include Bevacizumab (Avastin)[R], Ranibizumab (Lucentis)[R] and most recently Aflibercept (Eylea)[R].[4]The aim of the study was to determine the indications and preliminary outcome (functional and structural) of intravitreal Anti – VEGF at National Eye Centre, Kaduna.

Methods: A retrospective review of patients who received intravitreal anti – VEGF for various retinal conditions from June 2013 – 2016.Patient's biodata, diagnosis, co-morbid factor, type of Anti - VEGF, pre and post injection visual acuity, pre and post injection central foveal thickness (CFT). Patients were counselled and informed consent obtained. The eye prepared in the clinic and strict asepsis in theatre under topical anaesthesia (Tetracain by Alcon). A caliper was used at 4mm and 3.5mm from the limbus for phakic and psuedophakic eyes, respectively. Ranibizumab (0.5mg) and bevacizumab (1.25mg) were given in 0.1ml 30 or 32-gauge needle. Tamponade was achieved using sterile cotton buds at the injection site and eye padded. After an hour, the visual acuity and intraocular pressure (IOP) were measured and managed accordingly. Topical antibiotics and NSAIDs were given. Advised to come back when pain or reduced vision was noticed.

Results: A total of 46 eyes of 38 patients were analyzed with male: female ratio of 1:1. Mean age group was 60-69years. Bevacizumab was the commonest drug administered, 94.7%(44) while 4.3%(6) had ranibizumab. The mean frequency of injection was 2.5 +/- 0.82 SD. A few patients complained of self-limiting pain and floaters.

Discussion: Intravitreal anti VEGF is becoming a primary therapy or adjunct in our environment for the management of diabetic macular oedema, proliferative diabetic retinopathy retinal venous occlusion, wet ARMD, Sickle cell retinopathy[2,3] among others which are similar to our findings.

Anti-VEGF have revolutionized the outcome of these conditions as they stabilize vision and also

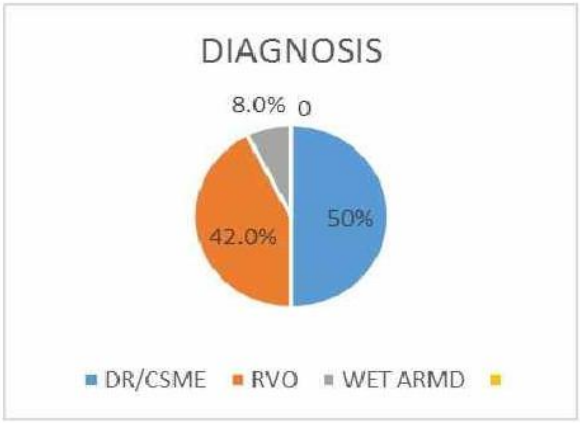

Fig. 1: Indications

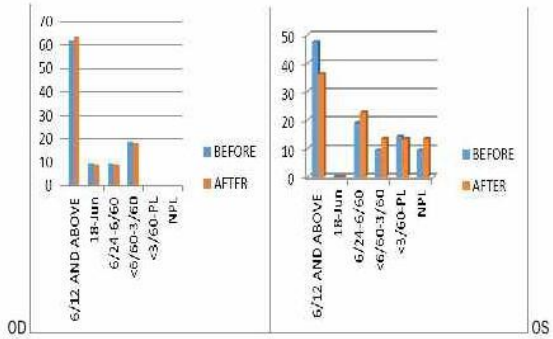

Fig. 2: Visual Outcome – Best Corrected Visual Acuity

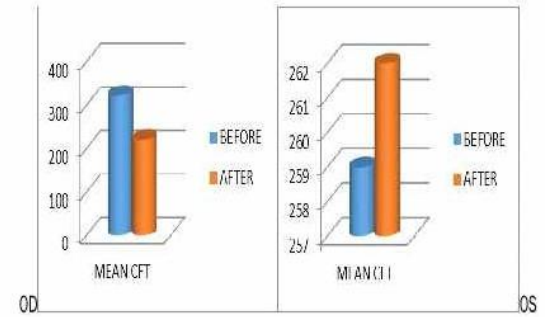

Fig. 3: Anatomical Outcome – MEAN CFT

prevent moderate to severe visual loss.[4]There was better functional outcome among eyes with mild to moderate visual impairment. Avastin[R] though still an off label product[5] was the most commonly used agent in our study. This is most likely due to its comparative affordability to Lucentis[R]. The short term outcome is well documented and a more recent study in Oman suggested its safety in the long term.3 The mean CFT was significantly reduced by 18.6%.

Conclusion: Intravitreal anti VEGF is safe with strict adherence to protocols and is most associated with marked anatomical improvement, even though outcome varies with severity and degree of visual impairment.

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