

Trends and indication of intravitreal anti-VEGF and Ozurdex in Medical Retina Subspeciality Centre, Hospital Shah Alam

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ABSTRACT

Introduction: To observe the trend of usage of intravitreal injection (IVT) anti-vascular growth factor (anti-VEGF) and Ozurdex in Hospital Shah Alam (HSAS) over the period of 6 months, to identify the main indications of IVT usage, to understand the impact on Malaysian healthcare system from IVT usage and to ascertain the visual outcome of patients post IVT. **Materials and Methods:** A retrospective study of patients receiving IVT anti-VEGF and Ozurdex from July to December 2023 at Medical Retina (MR) Centre, HSAS in which the demographic data of patients, types of IVT, the trend of IVT usage over 6 months, indication of IVT, visual outcome post completion of loading dose of IVT and the impact on healthcare were analysed. **Results:** The total number of IVT used is 3426 cases with IVT Aflibercept (48%) and IVT Ranibizumab (47.4%) being the highest, followed by IVT Brolucizumab (2.7%) and IVT Ozurdex (1.9%). Among the IVT used, 57.15% were performed to treat diabetic macula oedema (DME), 32.3% for age related macular degeneration, 9.17% for retinal vein occlusion, 1.17% to treat choroidal neovascularization and <1% for other causes. This had shown great improvement in their visual outcome, with 55% improvement from their baseline vision and 87% the ability to prevent their vision from worsening. Despite receiving IVT, 13% had poor visual outcome, which is mainly due to the complication of the disease itself. The total cost incurred during this period was close to RM 1.7million. **Conclusions:** Ranibizumab and Aflibercept are the main IVT used in HSAS. The main macular disease requiring IVT treatment in HSAS is DME. In this study, patients who undergo proper Loading Dose, had 87% of the ability to prevent the vision from worsening. Given the positive impact of IVT injections on the visual outcomes for many macula diseases, the cost for the patients being treated is justified.

Keywords: IVT, anti-VEGF, ozurdex