A PUBLIC HEALTH IMPACT MODEL OF ANECORTAVE ACETATE IN WET AGE-RELATED MACULAR DEGENERATION

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OBJECTIVE: This study aimed at estimating the potential public health impact of Retaene 15 mg (anecortave acetate suspension) in age-related macular degeneration. METHODS: Based on clinical trial results and literature, a Markov model was built to compare anecortave acetate to best supportive care (BSC) during the lifetime of ARMD patients. Patients entering the model were 75 years of age with a new diagnosis of wet ARMD in one eye. This model took into account the efficacy of anecortave acetate to slow deterioration and delay visual disability, the probability for a patient to develop the disease in the fellow eye, and mortality. RESULTS: The model was expressed in terms of duration of low vision (with blindness in one eye) and blindness in both eyes. Health consequences of blindness and low vision were estimated for depression and hip fractures as well as for institutionalization. Duration of the model was 25 years and the cycle length was 1 month. The fellow eye could be affected in 30% of the patients at five years. Premature mortality associated with blindness and low vision was estimated. RESULTS: Anecortave acetate decreased the number of prevalent blind cases by 20% and the average time with blindness by 30%. Depression prevalent cases were decreased by 21% and those with hip fracture by 10%. The number of patients who were institutionalized was decreased by 27%. Decrease in life expectancy due to premature mortality associated with blindness and low vision could be estimated at 17% in the BSC group and 15.5% in the anecortave acetate group. Life expectancy was increased by 3 months. CONCLUSION: Anecortave acetate presents important and favorable potential public health outcomes in patients with wet ARMD. According to the model it could reduce the rates of depression, hip fractures and institutionalization, and increase life expectancy compared with BSC.

EYE ADVERSE EFFECTS ASSOCIATED WITH POLYVINYL ALCOHOL TEAR DROPS AFTER LASER ASSISTED SUBEPITHELIAL KERATECTOMY (LASEK)

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OBJECTIVE: LASEK is one of the current surgical techniques to correct refractive errors of the eye, such as myopia, hyperopia, and astigmatism. In this method, the corneal epithelial flap is lifted then replaced after laser ablation of the subepithelial cornea. The hinged flap is created by epithelial marking and exposure of the marking ethyl alcohol (20%) for 5 seconds. METHODS: LASIK (Laser in Situ Keratomileusis) is a surgical procedure to correct myopia by corneal stroma subtraction. It involves the use of a microkeratome to make a lamellar dissection of the cornea creating a flap with intact corneal epithelium. After the flap is lifted, the underlying midstroma is reshaped with an excimer laser and the flap is returned to its original position. We have detected eighteen cases where the treatment of patients that had been subjected to LASEK with polyvinyl alcohol artificial tear drops provoked eye adverse effects. Toxicogenic keratitis, partial epithelium detachment, and allergic and toxicogenic conjunctivitis were observed. These adverse effects disappeared upon discontinuing tear drops administration and reappeared after their reintroduction. We used the Naranjo et al. algorithm to confirm the cause-effect relationship. RESULTS: All cases were confirmed as definitive. CONCLUSION: We have not observed any case of eye adverse effect in patients subjected to LASIK caused by polyvinyl alcohol tear drops.