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Abstract Title:
Anecortave Acetate: Both a Novel Agent and Novel Delivery System: Pilot Studies in Glaucoma

Purpose:
Both compliance and adjunctive therapy are important problems in glaucoma therapy. No current intraocular pressure (IOP) lowering medication can be routinely given at intervals greater than 24 hours per dose. Therapies are given either topically or orally and do not routinely yield an additional 25% decrease in IOP lowering when added to medications such as prostaglandin analogues. Anecortave acetate (AA) is a cortisene and an analog of cortisol acetate. Because of structural alterations, AA lacks the typical anti-inflammatory and immunosuppressive properties of glucocorticoids. We investigated the extent and duration of IOP lowering following a single sub-Tenon's injection (anterior juxtascleral depot [AJD]) of 24 mg of AA.

Design:
Prospective, open labeled, pilot study.

Participants:
Two groups of patients were treated: one with glaucoma secondary to triamcinolone injections and another with open angle glaucomas on at least one IOP lowering medication.

Main Outcome Measures:
Intraocular pressure lowering

Methods:
An inferior AJD was given under topical anesthesia and we followed patients at weeks 1, 2, & 4; and monthly thereafter.

Results:
Six eyes (5 patients) had triamcinolone: 4 with macular edema and 2 with uveitis. Mean baseline IOP was 39.9±8 mmHg on 4.2±1.2 medications. Mean IOP decrease was 16.0 ±2.9 mm Hg (42%). Surgery was avoided in 3 of the six eyes and the IOP lowering effect has lasted at least 8 months. In another six patients with glaucoma and IOP ≥ 23 mmHg (POAG [4], PDS [1], PXF [1]), one injection of anecortave was given. Mean pretreatment IOP was 31.3+/-11.3 mmHg. Five of six patients had a >25% IOP decrease at 6 months following a single injection with a mean IOP of 16.5±-1.8 mm Hg and a mean decrease of 10.8+/-7.8 mmHg (39%+/-21%). No clinically significant adverse events occurred. Two patients were able to maintain good IOP control on no other medications. One patient in each treatment group had no IOP lowering associated with AA AJD; eyes with particulate glaucoma (PXF, PDS, uveitic) were less responsive.

Conclusion:
Anecortave acetate delivered via an AJD represents a potentially new avenue of treating glaucoma patients obviating problems with eye drops and compliance. Clinically meaningful additional medium-term IOP reduction is possible with a single AJD of AA, much more than presently obtained with any currently available adjunctive medications. Larger scale, longer-term studies are needed to determine the dose response and duration of action.