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Punctal plugs plus topical agent maximize eye relief

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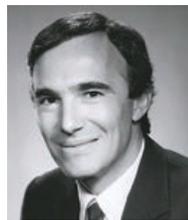
Fort Lauderdale, FL—A dual treatment approach combining punctal plugs with use of topical cyclosporine ophthalmic emulsion 0.05% (Restasis, Allergan) affords dry eye sufferers greater improvement in their signs and symptoms than monotherapy with either modality alone, said Calvin W. Roberts, MD.

Dr. Roberts, clinical professor of ophthalmology, Weill Medical College of Cornell University, New York, reported the results of a parallel comparison study in which 30 consecutive patients with bilateral dry eye symptoms and 2+ conjunctival staining with lissamine green were randomly assigned to receive topical cyclosporine twice a day, punctal plugs to the lower lids only, or combination treatment. Responses were evaluated after 1, 3, and 6 months by assessing Schirmer test results (5 minutes with anesthesia), conjunctival staining scores, and frequency of use of artificial tears for symptom relief. He presented the results at the Association for Research in Vision and Ophthalmology annual meeting here earlier this month.

After just 1 month, punctal plugs were associated with marked improvement in Schirmer scores and decreased frequency of artificial tear use, but that intervention had little effect on conjunctival staining. Onset to efficacy took longer with cyclosporine monotherapy, but all three measures of efficacy eventually improved with its use. However, patients in the combination group enjoyed the benefits of both modalities with improvements that occurred early and that were equal or superior to those associated with either of the monotherapies.

Dual approach “Management of dry eye has received increased attention recently, and

with the introduction of several new therapeutic modalities, including new artificial tear products, topical cyclosporine, and new punctal plugs, the question arises what is the best first-line intervention for patient care,” Dr. Roberts said. “While topical cyclosporine is being used more and more for the treatment of moderate dry eye, our study results indicate clinicians should not abandon punctal plugs nor consider punctal plugs and cy-



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Calvin W. Roberts, MD

cyclosporine as mutually exclusive. Those modalities are complementary, work by different mechanisms of action, and act synergistically to maximize relief of the signs and symptoms of dry eye.”

At baseline, mean Schirmer scores ranged from 2.5 to 2.7 mm across the three groups. At the 1-month visit, mean Schirmer scores had increased to 7 mm in the punctal plug group and 7.1 mm among patients receiving combination therapy, but had decreased to 1.2 mm in the cyclosporine group. At study conclusion, however, mean Schirmer scores were comparable in the punctal plug and combination groups (6.3 and 6.5 mm, respec-

tively) and were slightly inferior in patients using cyclosporine (5.7 mm).

Mean lissamine green conjunctival staining scores in the three groups ranged from 2 to 2.3 at baseline (possible score range, 0 to 4). All groups showed a modest benefit after 1 month (mean change range, -0.2 to -0.3), and there was no further improvement throughout the course of the study in the patients using punctal plugs. However, patients using cyclosporine alone or in combination with punctal plugs achieved greater reductions in conjunctival staining after 3 months and further benefit by study conclusion when mean changes from baseline were -0.9 and -1, respectively.

Mean frequency of artificial tear instillation at baseline ranged from 5.5 to 6.0 times daily across the three treatment groups. By 1 month, patients who had punctal plugs placed reduced their usage by about two instillations a day whether or not they also were using cyclosporine whereas patients using cyclosporine monotherapy had minimal change (-0.6).

However, the group receiving the punctal plugs alone achieved no additional reduction in artificial tear use over the next several months while those using cyclosporine had progressively greater benefit. After 6 months, mean reductions in the frequency of artificial tear instillation were -3.2 in the cyclosporine group and -3.8 in the combination group.

Dr. Roberts chose the Parasol Punctal Occluder (Beaver-Visitec International) for punctal plug placement in this study based on his positive experience with that product in clinical practice. The Parasol Punctal Occluder was easy to fit in all patients and well-tolerated throughout the study.

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