Ocular papillary changes on the caruncle surface in allergic conjunctivitis

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Rationale: The caruncle is located in the nasal corner of the eye and can be easily viewed. Prior reports have associated papillary changes on the caruncle surface as diagnostic sign of allergic conjunctivitis. We examined the caruncle and the rest of the palpebral conjunctiva under magnification and fluorescein dye to determine surface roughness in this multi-site, non-interventional, retrospective chart review.

Methods: Subjects over age 18 were viewed with a slit lamp and fluorescein dye under cobalt blue light with a yellow filter as part of routine eye examination. The caruncle was graded in 0.5 steps (0 smooth/normal to 4 severe papillary response). The palpebral conjunctiva was also examined and graded in the same manner.

Results: 285 consecutive patients were seen in two clinics. Significant differences were found between the caruncle and palpebral surfaces scores (p<.0001). The caruncle scores were consistently higher (mean 1.76 SD 0.82) than palpebral conjunctiva scores (mean 1.34 SD 0.74). Pearson correlation was 0.3 (p<.0001).

Conclusions: Greater papillae in the caruncle may indicate a greater inflammatory response when compared to the palpebral conjunctiva. This may explain why eye rubbing with allergic conjunctivitis is more likely to occur in the corner of the eyes (caruncle area). Allergists can examine the caruncle with the naked eye. Along with the location of eye rubbing, this can help to diagnose allergic conjunctivitis.

References


Discussion & Conclusion

Papillary changes in the lids are the hallmark of allergic conjunctivitis signs. Caruncle surface changes are more severe than lid surface changes. May be due to greater inflammatory response in caruncle than rest of the eye. May help in diagnosing allergic conjunctivitis. Allergists can examine the caruncle for surface roughness (papillary changes) with the naked eye. Along with the location of eye rubbing, this can help to diagnose allergic conjunctivitis.