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## **CLINICAL EVALUATION AND EXPRESSION OF MATRIX METALLOPROTEINASES IN PATIENTS WITH CONJUNCTIVOCHALASIS**

Dinorah P Engel; Carlos Eduardo B Souza; André Romano; Jaison Barros; M. E. Fini; Miguel Burnier; Denise de Freitas. **Purpose:** To study clinical features, histopathology and matrix metalloproteinase (MMPs) expression in conjunctiva of patients with conjunctivochalasis (CCh).

**Methods:** Clinical symptoms, Schirmer's test, rose bengal staining and impression cytology were evaluated pre and postoperatively in ten patients with conjunctivochalasis undergoing excision of redundant conjunctiva. Conjunctival specimens were sent to histopathology evaluation and immunohistochemistry expression of MMP-9; Mt-MMP1; MMP-3. These specimens were compared with those from normal patients undergoing cataract surgery.

**Results** Symptoms improved in all patients following surgical treatment. Mean Schirmer's test decreased from 14.1 (+/-6.8) mm to 11,8 (+/-3,7) mm postoperatively. Mean rose bengal staining scores improved from five prior surgical intervention to two. Impression cytology revealed squamous metaplasia in 8 patients preoperatively. Histopathology showed an abnormal collagen/elastin morphology in patients with CCh normally associated with chronic inflammation. MMP-9 and MMP-3 was overexpressed in patients with CCh.

**Conclusion:** Signs and symptoms successfully improved in patients with conjunctivochalasis following surgical treatment. Abnormal collagen/elastin was upregulated in patients with CCh. Conjunctival specimens showed an overexpression of MMP-9 and MMP-3 in patients with CCh.