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PIBIC Last Name - Matieli First Name - Licía Cristina Middle - Vago

Service (sector) Cornea and External Disease N° CEP

Influence of suture material on primary pterygium surgery

AUTHORS: Matieli LCV, Alvarenga LS, Freitas D, Sousa LB

PURPOSE: To investigate the influence of the suture material on pterygium surgery

MATERIALS AND METHODS: Prospective, interventional and randomized study. Thirty-five eyes of thirty-five patients with primary pterygium will be included in this study. Until now, 20 patients (mean follow-up of 3 months) have been included. Following a bare-sclera surgical removal of the primary pterygium, a conjunctival autograft of the same eye was obtained from the inferior bulbar conjunctiva. After harvesting the graft the patient was randomly allotted into one group of treatment. The three groups differed only in the material used to suture the graft onto the excised area (Nylon 10.0, Vicryl 8.0 and Vicryl 10.0). Anti-metabolite was not administered nor was adjuvant radiation applied. All patients were treated with a combination dexamethasone 0.1% / chloramphenicol drop t.i.d. for six weeks. Data regarding post-operative symptoms, frequency of complications (e.g. dehiscence, pyogenic granulomas), inflammation at the site of the suture, difficulty of handling suture removal, and recurrence (any growth >1mm onto the cornea) were analyzed. The symptoms (foreign body sensation and pain) were graded from 0 to 5 by the patient. The inflammation and the difficulty of suture removal were graded (0-5) by the examiner.

RESULTS: No dehiscence, pyogenic granulomas or recurrence were identified. Inflammation at the site of the suture was present in patients sutured with vicryl 8.0 and 10.0 but not in patients of the nylon 10.0 group. There were no differences between the groups concerning symptoms. The examiner considered that it was easier to remove the nylon suture when compared to the difficulty of removing vicryl (8.0 and 10.0).

CONCLUSIONS: Considering these preliminary data, the nylon 10.0 suture may provide less inflammation and an easier suture removal in patients that had primary pterygium excision. Further observation is necessary to analyze whether or not this will influence the recurrence rate.