Original Article

Comparison of Pterygium Recurrence Rate between Consultants and Residents using 5 FU as an Adjuvant after excision of Primary Pterygium

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Purpose: To compare the recurrence rates of pterygium between consultants and residents after primary pterygium excision.

Material and Methods: A retrospective study of the primary pterygium excision cases with intraoperative 5-FU as an adjuvant therapy, done in a tertiary institution was carried out. All 36 case notes retrieved were reviewed.

Results: Residents operated on 16 patients while consultants operated on 20 cases. Of the 16 operations done by residents, 6(37.5%) had recurrence while it was seen in4 (20%) of the cases performed by consultants. The difference in recurrence not statistically significant. P=0.244.

Conclusion: Although there was no statistical difference between the two groups considered in this study, the recurrence rate is still higher among the residents.

Pterygium is a fibrovascular growth, a degenerative condition of the conjunctiva. It is usually seen in the interpalpebral feature. The exact cause of pterygium is not known but it has been found to be high in people who do outdoor work.[1] The definitive treatment for the condition is surgical excision. The indications for pterygium excision include cosmesis, visual improvement and treatment of ocular discomfort.[2]

The recurrence rate of pterygium after surgical excision is high with the conventional bare sclera technique.[3-7] This was found by Young et al[8] to rise steeply with the size of the pterygium as at the time of excision. To prevent recurrence, several techniques have been used. These include application of antimetabolites, Mitomycin C and 5 Fluorouracil, application of conjunctival autograft, amniotic membrane transplantation (AMT), fibrin glue, beta irradiation ablation etc.

In the part of the world where the present study was conducted, surgical training is incorporated in the residency training program. Pterygium excision is one of the surgeries a well trained ophthalmologist in this part of the world should be comfortable with on completion of his training. Those who have been trained sufficiently are usually allowed to perform this procedure under the supervision of the consultants during the training.

The purpose of the current study is to compare the recurrence rate of pterygium after excision among resident doctors and consultants using 5 FU as an adjuvant.

MATERIAL AND METHODS

A retrospective study of cases of primary pterygium excision by resident doctors and consultants using 5 Fluorouracil as an adjunctive therapy was carried out. Out of 106 pterygium excision recorded done in the tertiary institution, only 62 case notes could be

retrieved for the period 2005 to 2007. Thirty six of these were excision with 5 Fluorouracil. Twenty of the surgeries were performed by consultants and 16 by resident doctors under very close supervision. The residents carried out the surgeries with the consultants in assistance. The surgical technique used was basically excision of the apex of the pterygium first, dissection of the body of pterygium from the sclera, and excision of the body and overlying conjunctiva. 5 FU (50 mg/ml) was then applied to the bare sclera using a sponge for duration of 3 minutes. This was followed by copious irrigation with normal saline solution. Chloramphenicol eye ointment was applied to the eye and patched dressing left for 24 hours. Topical dexamethasone three times daily was added from the first day post operatively. Post operative follow up ranged from one to forty months, with a mean follow up period of 10.7 months.

The results obtained were analysed using EPI INFO 2002.

RESULTS

Post operative recurrence was observed in a total 10 (27.8%) of the 36 cases. Six (37.5%) of the 16 done by residents had recurrence, while 4 (20%) of the 20 done by consultants also reoccurred (Table 1). The earliest time recorded for recurrence was at four weeks, in a case that was done by a consultant and the latest was at 4 months. There were no major intra or post operative complications recorded in both groups. The difference in the recurrence rate was not statistically significant, P = 0.244.

Table 4: Number of eyes done by consultants and residents and recurrence

	No done	Recurrence rate n (%)
Resident	16	6 (37.5)
Consultant	20	4 (20)
Total	36	10

DISCUSSION

Several studies have been conducted the on reduction of pterygium recurrence rate with 5 FU as an adjuvant. In this study, the resident had a higher recurrence rate compared to the consultants. The recurrence rates of 37.5% and 20% recorded by resident doctors and consultants respectively are comparable to what other authors have reported. Bekibele et al,[9] reported recurrence of 11.4% of 35 patients in their study on pterygium treatment using 5 FU as an adjuvant treatment compared to conjuctival autograft. Akarsuet al[10] recorded in their preliminary report, recurrence rate of 25%, in 25 patients. Rahmanet al[11] reported 33% recurrence rate.

The difference in recurrence rate between the residents and consultants was not statistically significant. This is an encouragement for both the teachers and the residents. The reason for the higher incidence among residents however may be attributed to different reasons. The consultants must have performed this procedure several times and have some degree of mastery from experience. The residents on the other hand, not only are they just being introduced to the surgery, the number that each may have performed may not yet be sufficient. Volume is required for efficiency and this will be acquired over time.

CONCLUSION

In this study, the recurrence rate of pterygium was found to be higher among resident doctors compared to the consultant but not statistically significant.

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