



CLINICAL STUDY ON KELOIDS

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ABSTRACT

Background: Keloids form as a result of abnormal growth of scar tissue usually after trivial injury to the skin. The aim of the study is to identify clinical profile and risk factors, to find common site of occurrence of keloids in local population

Materials: The study population of 50 patients who had attended Surgery OPD and diagnosed as keloids whose history and clinical finding were studied.

Results: keloids were found more in young females. The average mean age was 28 yrs. The risk factors were trauma, burn, ear piercing, previous surgery. The common site was ear lobes and chest. The treatment plan was done based on size.

Conclusion: The prevalence was found in young females. The most common age was between 10-30 yrs. The maximum cases were in trauma, burns were noticed. Ear lobe was observed to be common site in my study

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INTRODUCTION

Keloids is benign fibrous growth, present in scar tissue of predisposed individuals, extend beyond the borders of the original wound, doesn't usually regress spontaneously and tend to recur after excision [1,2]. It is a result of irregular wound healing after skin insults (trauma, inflammation, surgery, burns. etc.) but sometimes occur spontaneously. Most keloids develop within 3 months of the injury, but some occur up to 1 year after skin insults [3,4]. Keloids are often pruritic and painful, in addition to significant effects of patient's quality of life, both physically and psychologically especially in excessive scarring [5,6]. However, it is possible that several factors such as age of onset, sex, cause of scarring, blood groups, anatomical site, presence of family history, number of injured site like single/ multiple and modifiable factors like delayed healing and hypertension have important role in keloids formation. Trauma that create tissue loss will lead to repair process and eventually ends with scar tissue. In some individuals, an aberrant healing process result in excessive scar formation which in turn lead to keloids formation. Keloids appear as firm nodules, mildly tender, bosselated tumor with shiny surface Keloids have less incidence among patient

present to OPD with swelling as complaints. Though it is not malignant, it grows to enormous proportions and is not only a cosmetic deformity but also produces itching, burning pain. The most common problem in keloids is recurrence. finding out causal factors and predisposition to form keloids which can be helpful in treating patients effectively. The cause, the inciting factors, its predisposition to occur in certain races, certain injuries and certain sites are still to be explained. This study is to seek detailed Information of etiological factor and reduce the formation of keloids.

Aim

- ✓ The study was done to identify clinical profile of keloids.
- ✓ To identify the risk factors and common site of occurrence of keloids

MATERIALS AND METHODS

The study was conducted during the period from October 2018 to September 2019 at surgery OPD in RMMCH. The study population was 50 patients and study was prospective

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observational study. The patients who attended as outpatients and inpatient in which who were diagnosed as keloids were taken into study. The duration, progress of the lesion, associated symptoms, family history, treatment history were also asked. An informed consent was obtained from the patients. A meticulous general and systemic examination was performed. The site, number, size, consistency, color of the lesion was noted. Complete blood investigation and necessary pathological investigation are taken to confirm the diagnosis. According to the size of the lesion, the treatment was planned like excision, intralesional steroid injection, intralesional bleomycin injection, cryotherapy. Patients who are diagnosed as keloids at any site usually after trauma, burns, previous surgery, ear piercing were included, patients who have received treatment previously and occurrence of keloids following treatment were diagnosed as recurrent keloid, patient who have keloids more than two keloids at same site or different site were diagnosed as multiple keloids were included in this study. The patients presented with hypertrophic scars and keloid with abscess where not included.

RESULTS

In my study, the majority of patients presented with keloids were between 10-30 years of age. The average mean age was 28. The youngest patient was 7 years and oldest patient was 70 years in which female predominant were seen.

Of 50 study population, 32 (64%) patients were females, 18 (36%) patients were males. Trauma were found to be the most common inciting factors, trauma ranging from minor injury like nail scratch to significant trauma like cut, laceration, abrasion and surgery. A history of trauma prior to the onset of the lesion was obtained in 21 patients followed by a history of burns prior to the onset of the lesion were noticed in 11 patients and followed by ear piercing, previously done surgery, healing ulcers, vaccine, 3 cases of spontaneous keloids were reported

The common site of occurrence is ear lobe (12) (24%) were seen out of 50 cases. Chest (11) (22%) was second most commonly affected site followed by abdominal and inguinal region (5) (10%), forearm (5) (10%), thigh (4) (8%), arm (3) (6%), back (3) (6%), hand (3) (6%), leg (3) (6%), shoulder (1) (2%), Ankle (1) (2%) in descending order.

The patients were presented to OPD as swelling (44) (88%), few patients presented with ulcers (6) (12%) and associated feature were itching (30) (60%), pain (13) (26%) and spreading lesion (7) (14%).

Positive family history of 1 case was reported, 5 patients reported previously treated for keloids. Of study population, 39 were diagnosed as keloids (39) (78%) followed by multiple keloids (9) (18%), followed by recurrent keloids (2) (4%). According to size lesion, small sized lesion was 0.5 cm to 3 cm (10), medium sized 3cm to 5cm (24), large sized lesion was more than 5 cm (15), treatment was done, 31 patients undergone excision (62%) and 16 patients were given intralesional steroid injection (32%), followed by intralesional bleomycin injection (2) (4%), followed by cryotherapy (1) (2%).

The patients were followed up at 4 weeks, 1 patient developed infection and 2 patients developed recurrence. At 6 months, 1 patient developed itching over excised site, 7 patients suffered

from infection, 7 patients developed recurrence. At 10 months, 1 patient developed recurrence.

The recurrent rate is 20%, the infection rate is 16% (the infection occurred after performing excision of keloid).

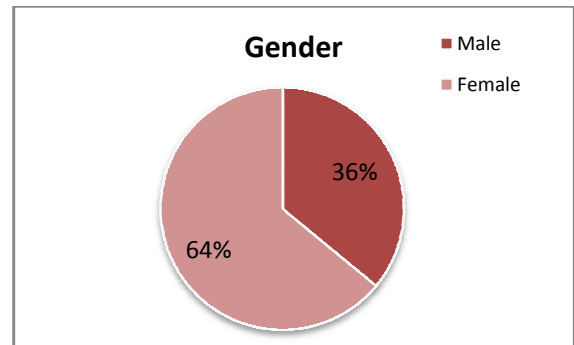


Figure 1 Showing Gender wise Distribution

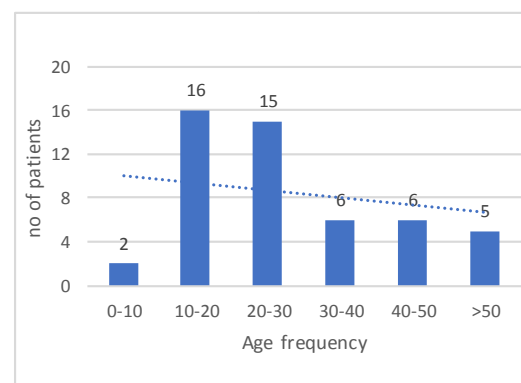


Figure 2 Showing Age wise Distribution

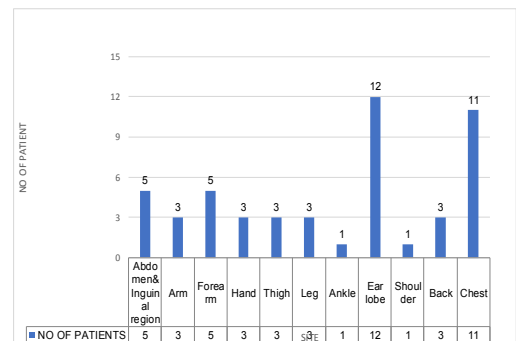


Figure 3 Showing Treatment

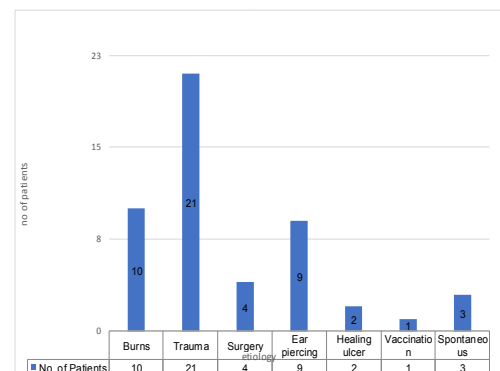


Figure 4 Showing Etiology

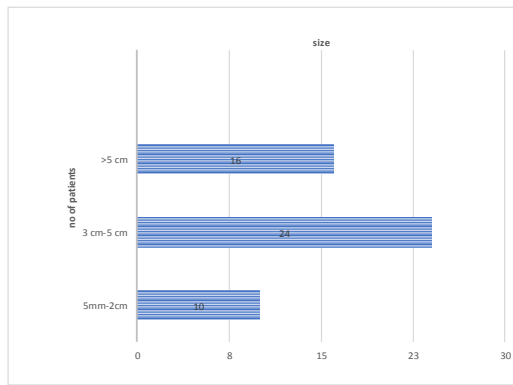


Figure 5 Showing Size of the lesion

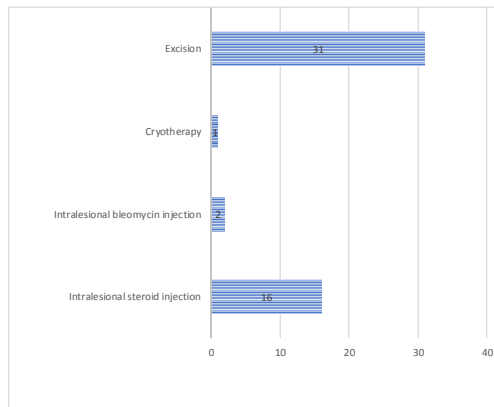


Figure 6 Showing Treatment

Table 1 Showing common sites

Site	Number (%)
Ear lobe	12 (24)
Chest and sternum	11 (22)
Upper limb	11(22)
Lower limb	7 (14)
Abdomen & inguinal	5 (10)
Back	3 (6)
Shoulder	1(2)

Table 2 Showing Etiology

Etiology	Number (%)
Trauma	21 (42)
Burns	10 (20)
Ear piercing	9 (18)
Surgery	4 (8)
Spontaneous	3 (6)
Healing ulcer	2 (4)
Vaccination	1 (2)

DISCUSSION

Studies have quoted figure of 60% (Ragoowansi et al) [13] and 80% (Guix et al) [12] of patients being female. In few other studies the sex incidence was found to be equal (Syed M A et al) [14], (Abeer Shaheen et al) [7] and female predominance was seen in study studies. In our prospective study, the results were found to be female predominance with more than 60% and average mean age of this study was 28 yrs. The increase incidence in young female is postulated to be more ear piercing in this age group and young population tend to have more prone to trauma and increased tension due to increased rate of collagen synthesis.

In many studies (Syed et all, [14] Abeer Shaheen et al [7]) showed burns followed by trauma. In my study, the etiological

factor was found to be trauma with 42% which are mainly of laceration, burns were second etiological factor with 20 %, ear piercing with 18%.

In many studies showed that ear lobe was most common site (Berman et al [8,9], Borgognoni et al [10]), in this study, common site was found to be ear lobe due to young predominance who have done ear piercing.

According to the size of lesion, treatment was planned. Less than 3 cm lesions (10) (20%) were treated by intralesional steroid injection, intralesional bleomycin injection, cryotherapy. The lesion ranging from 3 cm to 5 cm were treated by intralesional steroid injection, intralesional bleomycin injection, excision alone. The lesion more than 5 cm were found to be large in size were treated by excision alone.

In the most study (Raj Ragoowansi et al [13], bard Cosman et al [11]) patient was treated with intralesional steroid injections as first line and as second line treatment if not responding to steroid therapy in large lesions. In this study 31 cases have been excised but post-operative radiotherapy was not given. There were 5 recurrence 10% was reported. 16 patients were treated with intralesional steroid injection, 5 patient 10% were seen. The overall recurrent rate is 10 (20%). One patient was treated with cryotherapy and cured and 2 patients were treated with intralesional Bleomycin.

The excision alone and intralesional steroid injection can be used to treat keloids effectively with recurrence of both treatment modalities were 20%. The patients were followed up at 4 weeks, 1 patient developed infection and 2 patients developed recurrence. At 6 months, 1 patient developed itching over excised site, 7 patients suffered from infection, 7 patients developed recurrence. At 10 months, 1 patient developed recurrence. In this study, 10 cases have registered a treatment failure (10 in 50) giving a recurrence rate of 20

CONCLUSION

- ✓ In this prospective study shows prevalence of keloids was found more in young females. The majority of keloid were seen in 10 – 30years age group in our study.
- ✓ The common risk factor was found to be trauma before the onset of keloid in this study. The other etiological factor was observed burns, ear piercing, surgery, spontaneous in descending order of frequency.
- ✓ The most common site of occurrence of keloid in our study was observed to be ear lobe. The other site of involvement was chest and sternum, abdominal and inguinal region, forearm, thigh, back, hand.
- ✓ Clinic profile implies swelling as common presentation in which associated feature was itching followed by pain
- ✓ Excision were done in which recurrence rate were low.
- ✓ In this study, complete excision shows lower recurrence rate and large number of patients didn't show recurrence during their follow up.

- ✓ The overall recurrence after treatment modalities were found to be low.
- ✓ In view of the treatment, a single modality treatment is fraught with recurrence.

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