

Original Article

SYMPTOMATOLOGY OF KELOIDS IN AFRICANS

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ABSTRACT

The symptoms of keloids need to be well highlighted especially among African blacks.

To outline the symptoms of keloids in Southwest Nigeria with a view to offering adequate treatment to patients by relieving these symptoms.

A prospective study of 121 consecutive keloid patients managed in two teaching hospitals in Nigeria was done to assess the symptoms of keloids. Their demographics, site(s) of keloids; and symptoms associated with lesions associated with the lesions were documented.

The commonest symptom among the 121 patients was cosmesis, (100.0%) followed by itching, in 35 (28.9%), and then pain in 32 (26.4%) patients, foul smell in 4 (3.3%), heaviness, 6 (5.0%), peppery sensation, 8(6.6%), discharge, 7 (13.5%), tenderness (experienced when keloids are touched intentionally or accidentally), 10 (19.3%), and burning sensation, 10 (19.3%). The chest has the most symptomatic lesions with 15 (28.8%) and 9 (17.3%) patients having painful and itching lesions respectively.

Attention needs to be paid to treatment of keloid symptoms which may make life unbearable to patients in addition to overall treatments of these patients. This is in view of the fact that cure is difficult in these lesions.

Key words: Keloids, Symptomatology, Black African, Treatment.

INTRODUCTION

Keloids are the result of an overgrowth of dense fibrous tissue and usually develop after healing of a skin injury due to an abnormal connective tissue response in predisposed individuals (Kelly 2004). Whilst some individuals heal cutaneous wounds with fine line scars, others respond to trivial injury by forming large and symptomatic keloid scars (Bayat *et al*, 2004). Keloids are thought to occur only in humans (Urioste *et al*, 1999). Most patients who present for treatment are concerned about cosmesis, and this has justifiably been the overriding concern of physicians in the treatment of keloids. Complaints of pruritus, pain and burning sensation among others frequently occur.

While there have been a lot of work on the aetiology, pathophysiology, and treatment of keloids, less attention has been paid to documentation of these symptoms and their relative importance in the management of keloid lesions. Previous works have also shown the fact that patients from this part of the world believe that keloids are not much of a problem and therefore do not show psychological disturbances to the presence of keloids on their bodies (Olaitan 2009).

This study highlights the frequency and importance of the symptoms of keloids in a black African population; noting their location and severity.

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MATERIALS AND METHODS

Patients who presented with keloid to the outpatient clinic of the Burns and Plastic surgery unit of Ladoke Akintola University of Technology Teaching Hospital, Osogbo, Nigeria between January 2008 and January 2009 were interviewed. Consent was obtained and data collected using a standard questionnaire. The results were analyzed using the Statistical Package for social sciences (SPSS) version 12 software programme with frequencies, Chi² and t-tests.

RESULTS

Biodata

One hundred and twenty one patients were involved in this study. There were 71 (58.7%) males and 50(41.3%) females. Their ages ranged from 3 to 92 years with a mean age of 34.6 years. Seventy eight (64.5%) of them had at least secondary education while 27 (22.3%) had no formal education. Forty four (36.4%) of the patients (24 males and 20 females) had a family history of keloids while 77 (63.6%) were sporadic cases. Fifteen (34.1%) of those with family history had their fathers having keloid, 8 (15.8%) in mothers, 15 (34.1%) in brothers. Sisters of three of them were involved while 2 (4.5%) of the keloids formers had their children affected and one (2.3%) had other relation affected.

Previous treatment

Sixty nine (57.0%) of the keloids formers had a previous attempt at treatment while 52 (43.0%) had not. Thirty five (50.7%) of those who had attempted treatment used topical application of 'snake fat', 11 (15.9%) used intralesional injection of steroids, 6(8.7%) had surgical excision and 9 (13.0%) applied shea butter

Location of Keloids

A total of 183 keloid swellings were observed in these patients. The number of keloid ranged from 1 to 9 per patient with a mean of 2.6.

The chest had the highest number of lesions; with 28(15.3%), followed by the arm and face with 21 (11.5%) as shown in Table I.

Table 1 Location of Keloids

Site	Number	Percentage
Face	21	11.5
Neck	9	7.4
Ear	9	7.4
Shoulder	20	10.9
Scalp	4	2.2
Arm	21	11.5
Forearm	11	6.0
Hand	10	5.5
Back	9	7.4
Chest	28	15.3
Ant abdomen	12	6.6
Perineum	1	0.5
Thighs	9	7.4
Leg	17	14.0
Foot	2	1.1

Duration of Keloids

Keloids had been present for less than 1 year in 8 patients (6.6%), 1 – 5 yrs in 28 (23.2%) while 42 patients (34.7%) have had keloids since childhood (Table II).

Table II Duration of Keloids

Duration	# of patients	%
<1year	8	6.6
1-5years	28	23.2
>5years	43	35.5
Since childhood	42	34.7
TOTAL	121	100

Symptoms from keloids

All the respondents considered keloids as an unwanted blemish on their skin and indeed the most frequent symptom observed was cosmetic (100.0%) followed by itching in 83 patients (68.6%). Itching occurred always in 21 patients (17.4%), frequently in 41 (33.9%) and rarely in 21 patients (17.4%) (Table III).

Itching was commoner in males 47(66.2%) as against 32 females (64.0%) but the difference is not statistically significant ($p>0.1$).

Pain was the next most common and occurred in 55 patients (45.4%). It was 'always' present in 12 patients (9.9%), 'frequently' in 21(17.4%). It was also more common in males, 28 patients (23.1%) as against 24(19.8%) females patients but this is not statistically significant ($p>0.05$).

The least frequent symptoms were burning and peppery sensations which occurred in 5 (4.1%) and 3 (2.5%) patients respectively. Other symptoms noted were tenderness 15 (12.4%), foul smell 7 (5.8%), discharge 6 (5.0%) with 5 males and only one females. Heaviness was observed in 8(6.6%), peppery sensation 3 (2.5%), burning 5 (4.1%). No significant difference was also observed in the symptoms of keloids among the patients with sporadic and those with familiar keloids ($P>0.05$).

Table III Distribution of Symptoms

Symptom	Never	Rarely	Frequently	Always
Cosmesis	0	12	60	49
Pain	20	11	9	12
Itching	17	6	15	14
Tenderness	42	4	2	4
Smelling	48	2	1	1
Discharge	45	3	1	3
Heaviness	46	1	2	3
Peppery	45	4	1	3
Burning	42	8	1	1

Location of symptoms

Chest keloids also gave most symptoms with 21 (75.0%) of the chest keloids being associated with itching while 13 (46.4%) of them were painful. (Table IV). All 9 ear keloids (100.0%) were reported painful and 6 (66.7%) of them had itching.

Heaviness was reported in only 2 (22.2%) of the ear keloids. Other symptoms were as documented in table 4.

Ten (19.2%) of the respondents have had to absent themselves from work as a result of

pain and itching while 1 (1.9%) had withdrawn socially as a result of the foul odour emanating from the discharge from the keloids.

DISCUSSION

Keloid swellings are medically benign, but often psychologically and socially "malignant". They are nodular skin lesions that in severe forms resemble neoplasms and may cause much physical and psychological distress⁵ as well as significant financial costs⁶. Till date, no universally accepted treatment protocols exists (Fette 2006).

Our current study shows that only 57.0% of the keloids formers had previous attempts at treatment with most of these 35(61.4%) exploring traditional methods of treating keloids. This may be partly because the symptoms were not considered as very disturbing as previously documented (Olaitan 2009) or that the knowledge that keloids could be treated was low among these patients. This becomes important considering the duration of keloids on the bodies of these patients as at least 85 (70.2%) of the patients in this study have had keloids for at least 5 years. Symptoms that have been observed with excessive scars include pain, pruritus, dyschromic changes and burning sensation and keloids are no exception (Lane and Waller, 2005; Bock *et al.*, 2006; Robles *et. al.*, 2007; Lee *et. al.*, 2004). Our studies of this co-hot of patients in a black African populace reveals that cosmesis was the commonest symptom. This was followed by pruritus and then pain.

It appears that keloids lesions on the chest wall give the worst symptoms. Pain was seen in all the ear keloids in this study. Itching and pain constitute the most common symptoms followed by tenderness. Keloid lesions on the neck were reportedly smelly and discharge commonly in the current study. Itching, discharge and smelling was possibly as a result of the part being an hairy area prone to hair trapping in the keloids, with associated infection and discharge. The scalp lesions were however not reported to either discharge or smell inspite of the hairy nature of the area.

Table IV Distribution of Sites of Keloids and Symptoms

Site	Total Keloid	Pain	Tenderness	Itching	Peppery Sensation	Burning	Smelling	Discharge	Heaviness
Face	21	13	3	14	2	3	1	1	1
Neck	9	5	3	6	0	0	2	2	2
Ear	9	9	3	6	1	1	1	1	2
Scalp	4	1	1	2	0	0	0	0	0
Shoulder	20	7	1	13	0	0	1	0	3
Arm	21	10	3	14	1	1	2	1	3
Leg	17	7	0	11	0	1	0	0	2
Forearm	11	4	1	8	0	1	0	0	0
Hand	10	4	0	7	0	0	0	0	0
Chest	28	13	4	21	2	2	0	0	1
Anterior Abdomen	12	6	2	10	0	0	1	1	1
Perineum	1	1	0	1	1	0	0	0	0
Thigh	9	6	1	7	0	0	0	0	2
Foot	2	1	0	1	0	0	0	0	0
Back	9	2	0	5	0	0	0	0	0
Total	183	89	22	146	7	9	8	6	17

Keloids would give above symptom irrespective of whether it is familiar keloids or sporadic keloids. Symptoms of keloids do not have sex preference as no statistically significant difference was observed when both were analysed.

CONCLUSION:

In conclusion, cosmetic problems, itching, pain, and tenderness are common problems in keloids patients. Attention must therefore be paid to these symptoms as their reduction will make life more comfortable to keloid patients while efforts are being made towards getting a cure for keloids. Use of topical analgesics and antipruritic agents should be considered as important parts of treating keloids. The need for a course of antibiotics based on culture results of the discharge from keloids swelling will assist in ameliorating the symptoms of discharge. This will possibly reduce the trouble keloids patients usually have with keloids and the psychological impacts the lesions may have on the patients.

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