Original Article

Soft Tissue Sarcoma in Uganda.

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Background: Soft tissue sarcomas (STS) are rare heterogeneous tumours.The objective was to establish the prevalence of these tumours in Uganda.
Methods: Records of patients who were diagnosed histologically as soft tissue sarcomas from 1999-2001 inclusive were retrieved and analysed.
Results: There were 108 patients diagnosed with soft tissue sarcomas during the study period. The peak age was 15-30 years. The male to female sex ratio was 1.5:1. The commonest type was fibrosarcorma, and the commonest grades were 1 and 3. The commonest site was the lower limb at the groin.

Introduction

STS are rare heterogeneous tumours with varying histology, presentation and prognosis[1]. They present at different ages and sites. They provide many challenges in diagnosis and treatments. This study was aimed at finding the prevalence of soft tissue sarcomas, the age, sex, site, type and grade distribution. This paper presents our experience with STS seen in Mulago hospital – Uganda.

Patients and Methods

The work was retrospectively done in Mulago hospital, which is a 1500 bed national referral and teaching hospital for Makerere University. Records of patients with a histological diagnosis of STS, between 1999 – 2001 inclusive were retrieved and information regarding age, sex, histology and site were collected and analysed.

Results

The study population consisted of 108 eight patients with soft tissue sarcomas.

The peak age range was 15-30 years (Table 1). Sixty four (59%) of the patients were males; 44 (41%) were female. The male to female sex ratio was1.5:1.

Table 2 shows the distribution of STS by site. Thirty nine percent were on the lower limbs. There were no visceral or retroperitoneal STS in these series.

Table1: Age distribution of STS.

Age group	No. of patients
0-14	20
15-30	28
31-45	25
46-60	20
>60	15
Total	**108**

Table 2: Site Distribution Of STS

Site	No. of patients
Lower Limb	42
Trunk	35
Upper Limb	7
Head and Neck	21
Total	**108**

LL = lower limb. UL = Upper Limb
T = Trunk. H/N =Head and Neck

Figure 1. STS of the Face

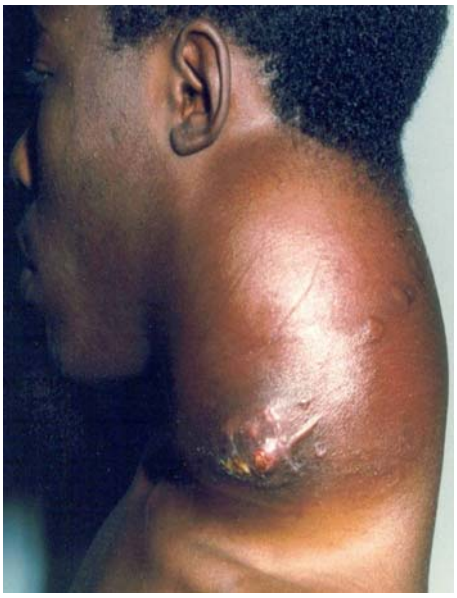

Figure 2. STS of the Neck

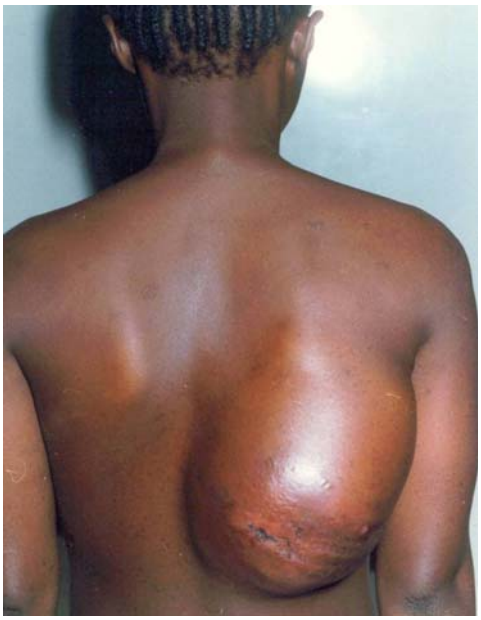

Figure 3. STS of the Trunk

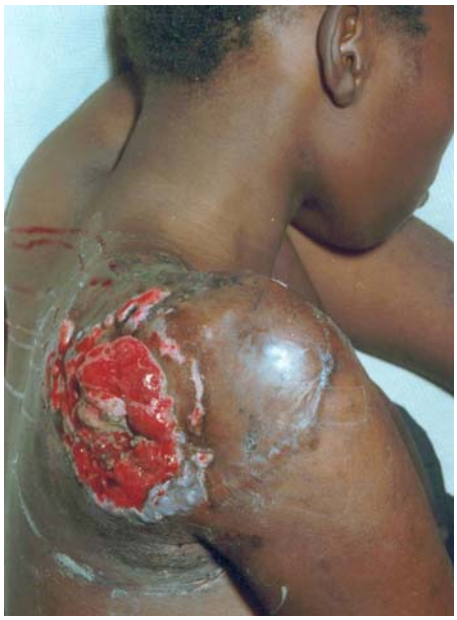

Figure 4. STS of Trunk. (Back)

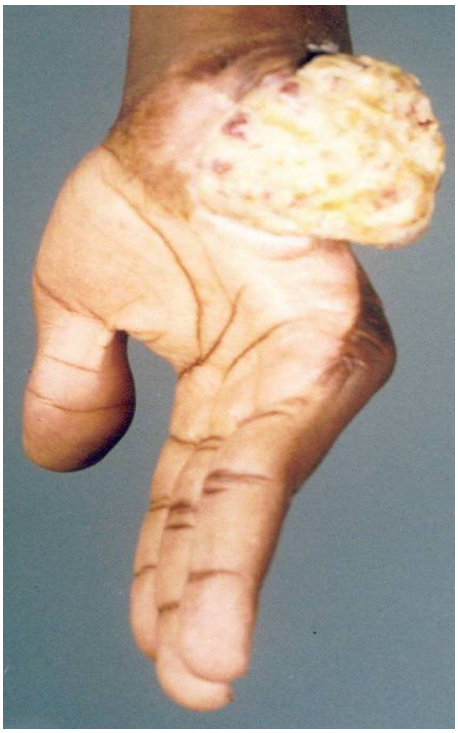

Figure 5. STS of Hand.

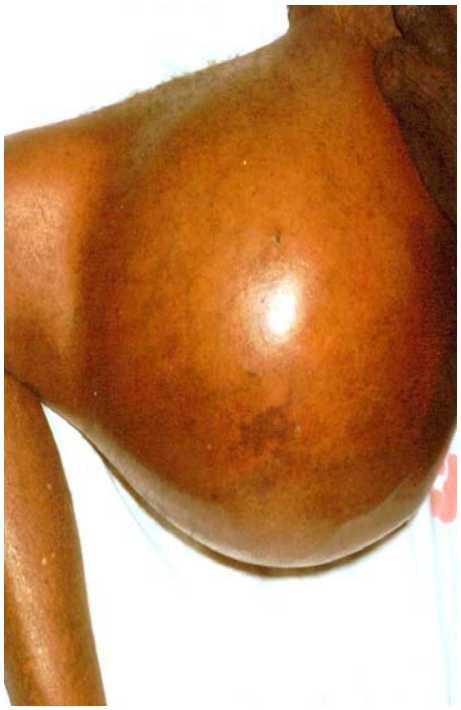

Figure 6. STS of Thigh

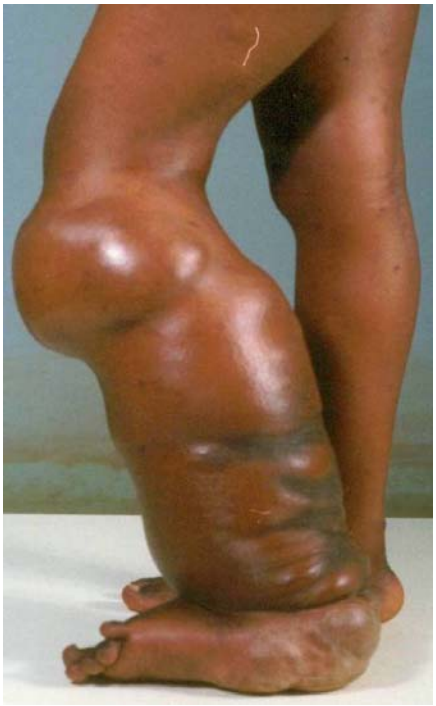

Figure 7. STS of Leg

Figure 8. STS of Thigh (Groin)

Table 3. Histological Types of soft tissue sarcomas.

Histologic type	**No. of Pts**	**%**
Fibrosarcoma	33	30.5
Rhabdomyosarcoma	19	17.6
Synoviosarcoma	15	13.9
Liposarcoma	12	11.1
Leomyosarcoma	10	9.3
Others	15	13.9
Unclassified	4	3.7
Total	**108**	**100**

Fibrosarcoma accounted for 30% of the soft tissue sarcmas.

Table 4. **Grade Distribution of STS**

Grade	**No. of patients**
1	32
2	24
3	30
Unclassified	22
Total	**108**

Table 5. Distribution by Surgery offered of STS

Surgery	**No. of patients**
Wide excision	20
Below Knee Amputation	15
Above Knee Amputation	10
Fore Quarter Amputation	3
Below Elbow Amputation	2
Above Elbow Amputation	2
Hind quarter Amputation	

Table 4 shows the tumour grades. Thirty percent were grade I and 30% were grade III (Fisher Broom Richards)

Time of Presentation

All masses were T.2 which is >5cm (GTNM system). Ten percent presented with distant mestases that involved the in the lungs 5%, liver in 2% and brain in 3%. Five percent had nodal metastases. There was no deliberate attempt to stage three tumours.

Treatment

Table 5 shows the form of surgery done. There were those in which surgery could not be done.

External Beam Radiotherapy was given to 50 patients; their average dose was 60 grays. A few patients were treated by combination chemotherapy.

Follow up of these patients was difficult. Most of the patients were not followed up except one who has now lived for 23 years. He had a well-differentiated rhabdomyosarcoma just below the right elbow. It was excised in April 1982; it recurred and was re-excised in 1985. In 1990 he was offered a mid humerus amputation. It recurred and in 1995 he was offered fore quarter amputation and adjuvant chemotherapy. When reviewed in 2003, he was well and had no clinical evidence of distant metastases.

Discussion

The peak age of 15 – 30 years recorded in this study agreed with that found in Britain and other countries although the average age of the population in Uganda is low[2]. The male to female sex ratio of 1.5:1 was similar to that reported by other workers[3].

The commonest site was the lower limb around the groin[4,5,6,7]. This particular area is protected from ultra violet light and is not a common site to trauma or chronic irritation. This would suggest therefore that ultra violet light and trauma are most unlikely to be risk factors in the causation of soft tissue sarcomas. The commonest histological type was rhabdomysarcorma, which was in agreement with findings by other workers[7]. The available facilitates in our centre did not have the capacity to type it further into the subgroups. In our series the patients were evenly distributed in Grades I, II and III. Other workers found III to be the commonest[8,9].

The majority of our cases presented late. This was mainly because of the rudimentary health service that lacks doctors, laboratories and infrastructure. Ninety five percent of the tumors were seen late even when they were more than

5cm in diameter and located on the extremities where they were visible. This was contrary to Pister's belief that tumors on the extremities are easily noticed[10]. Late reporting may be attributed to poverty, ignorance and poor transport system in addition to the poor health infrastructure in our commumities.

Conclusion

1. The common site of Soft Tissue Sarcomas in Uganda is the lower limb.
2. Patients report late when the mass is more than 5cm.

Recommendations

1. Every Health worker should have a high index of suspicion of STS.
2. Early referral for diagnosis and treatment is recommended.

References.

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