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Soft Tissue Sarcoma .The Experience at JOS University Teaching Hospital. JOS Nigeria

Ode M.B[1], Amupitan I[1], Misauno M.A.[2], Mancha D.G.[1], Onche I.I.[1], Nwadiaro H.C.[3]

1. Department of Orthopaedics and Trauma, University of Jos/ Jos university teaching hospital
2.Department of Surgery University of Jos/Jos university teaching hospital
3. Department of Orthopaedics and Trauma University of Abuja teaching hospital. Gwagwalada

Abstract: *Soft tissue sarcomas are a heterogeneous group of tumours with a wide variety of presentation. These tumours can present a challenge in management, ranging from diagnosi ,to treatment and rehabilitation. They often require a multimodal and multidisciplinary approach in their management. This study was aimed at determining the nature of presentation of these tumours in our hospital and elucidating the most common varieties, the anatomical regions involved, as well as the age and sex patterns of these tumours. This was a retrospective study carried out at the Jos university teaching hospital, covering a period of ten years, 2000 to 2009. Data was obtained from the cancer registry and case notes of patients diagnosed histologically. 108 patients were diagnosed to have soft tissue sarcoma. The age range was 3 to 85 years with a mean age of occurrence was 31.1years +/- 18.4 years. Rhabdomyosarcomabeing the commonest variety(65.7%) fibrosarcoma26 (24.1%), liposarcoma 6(5.6%), dermatofibrosarcoma 4(3.7%), and angiosarcoma the least occurring(0.9%). The anatomical sites involved were, thighs 32 (29.6%) , head and neck 16 (14.8%) , arms 10 (9.3%) , buttocks 11 (10.2%) , legs 11 (10.2%) , abdomen 9 (8.3%) , chest 7 (6.5%) , back 5 (4.6%) ,forearm 5(4.6%) and retroperitonuem2 (1.9%). Rhabdomyosarcoma made up two thirds of the soft tissue sarcomas found and the thighs were the commonest site of involvement.*

Keywords*: Soft tissue sarcoma, Jos, Experience.*

I. Introduction

Soft tissue sarcomas are a heterogeneous group of tumours with a great variety of presentation. These malignant tumours require early diagnosis and prompt treatment like any other tumour, in order to achieve optimum care and a possible "cure" from the condition(1, 2) . They are a group of tumours which can present a great challenge to the surgeon in terms of management which is often multimodal and multidisciplinary(3, 4). This challenge ranges from; making an accurate histopathological diagnosis, employing an effective treatment modality(they can be sometimes poorly sensitive to chemo therapy or radiotherapy), to determining the best surgical option (as many a time they can grow enormously) ,to rehabilitating the patient following initial care. This challenge in our environment is even more pertinent due to the fact that a large percentage of our patients present late for orthodox medical care with a locally advanced or metastatic tumour and thus have a poor prognosis(5-7). Also the burden of disease in our environment is largely from infectious diseases and thus there is a preferential allocation of scarce health care resources in this regard, leaving only meagre sums geared towards cancer care.

A good knowledge of the prevalent subtypes of soft tissue sarcomas in our practice would aid in targeting these little resources most appropriately and direct efforts more towards the most prevalent types and aid in public enlightenment of the community as regards these conditions, to encourage and improve on the time of presentation for hospital care. This study was aimed at determining the varieties of soft tissue sarcomas in our environment, and identifying the common varieties , the age of presentation of these tumours and the most common sites of involvement.

II. Methodology

This was a retrospective study analysis of the pathology records from the cancer registry and the case notes of patients who were diagnosed histologically and managed for soft tissue sarcomas at the Jos University Teaching hospital from 2000 to 2009. Data was obtained from these sources regarding the tumour type, sex, age at presentation and the anatomical site involved. Patients who had incomplete records were excluded from the study. The data was analysed for simple means and percentages using Epi - info statistical software.

III. Results

A total of 108 patients were diagnosed to have softtissue sarcomas in this study. The ages of those affected ranged from 3 years to 85 years with a mean age of 31.1 years +/- 18.4 years. The male female ratio was 1.2: 1. Five histopathologicalvarieities were identified.Rhabdomyosarcoma 71(65.7%), fibrosarcoma26 (24.1%), liposarcoma 6(5.6%), dermatofibrosarcoma 4(3.7%) and angiosarcoma1 (0.9%) Table 1.The anatomic location of these tumours were; thighs , 32 (29.6%) , head and neck16 (14.8%) , arms 10 (9.3%) , buttocks11 (10.2%) , legs 11 (10.2%) , abdomen 9 (8.3%) , chest7 (6.5%) , back5 (4.6%) ,forearm 5(4.6%) and retroperitonuem2 (1.9%). Table 2

Table 1 Histopathological varieties of soft tissue sarcomas

Pathological type	Number	Percentage
Rhabdomyosarcoma	71	65.7
Fibrosarcoma	26	24.1
Liposarcoma	6	5.6
Dermatofibrosarcoma	4	3.7
Angiosarcoma	1	0.9
Total	108	100

Table 2 Anatomical regional location of soft tissue sarcomas

Tumour location	Number	Percentage(%)
Thigh	32	29.6
Head and neck	16	14.8
Legs	11	10.2
Buttocks	11	10.2
Arms	10	9.3
Abdomen	9	8.3
Chest	7	6.5
Forearm	5	4.6
Back	5	4.6
Retroperitonuem	2	1.9
Total	108	100

IV. Discussion

Rhabdomyosarcoma was seen as the most common variety of the soft tissue sarcomas (65.7%).This is similar to findings by Brown et al.(8). Rhabdomyosarcoma is also believed to be one of the commonest forms of soft tissue sarcoma(9). It is believed to be the commonest form of soft tissue sarcoma in the first two decades of life(10, 11). Tanko et al also found rhabdomyosarcoma to be the commonest occurring childhood solid tumour(12). In this study rhabdomyosarcoma made up approximately two thirds of all the soft tissue sarcomas seen. This forms a significant amount of the burden of soft tissue sarcoma at this centre. However in a study carried out by Adigun et al(13), rhabdomyosarcoma made up just 9.5% of all the cases of soft tissue sarcomas.Angiosarcoma was the least occurring variety of soft tissue sarcoma 0.9% seen in this study.

The thigh was the commonest site of occurrence in this study (29%)and this is at variance with an earlier study by Mandong et al which had the leg/foot and head and neck as the more common anatomical sites involved followed by the thigh.(14). In a study by Seleye-Fubara et al on juvenile rhabdomyosarcoma, they found the trunk to be the most commonly affected site and more so at the genitourinary region (15). Brown in his work at Ibadan Nigeria on childhood rhabdomyosarcoma found the head and neck to be the commonest sites and the extremities were a rare location(8). An expanded work by Seleye-Fubara on soft tissue sarcomas showed the limbs as the most common anatomical site of occurrence.(16). The least involved site noted here was the retroperitoneum 1.9%. Other researchers (9, 16)also found the retroperitoneum a much less involved site There was a slight male preponderance in the occurrence of soft tissue sarcoma in this study, 1.2: 1. Other investigators have found similar sex involvement patterns(12, 16). Hessissen et al (11)intheir study however, found a male female ratio of 2:1. The mean age of occurrence was 31.1 years +/- 18.4years which suggests a relatively younger population involvement.Adigun et al(13) also found a similar age involvement. This may not be unconnected with the fact that since rhabdomyosarcoma was noted to be the most commonly occurring variety and this condition is mostly seen in children and the younger population, the younger population would thus tend to be the most involved group.

V. Conclusion

Rhabdomyosarcoma made up two thirds of the soft tissue sarcomas in our hospital and angiosarcoma rarely seen. The thighs and head and neck region are the commonest sites of involvement and individuals in the third and fourth decades of life were predominantly affected.

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