

# Unusual presentation hides the diagnosis of soft tissue sarcomas

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**Abstract**

Soft tissue sarcomas are always challenging lesions. This study is aimed to stress on unusual presentation of sarcoma patients that may cause significant delay in the diagnosis to provide appropriate therapy. Two subsets of cases were studied: (A) 50 cases of abscess forming mass in the body (prospective) (B) 40 cases of soft tissue sarcomas studied for the clinical presentation (retrospective). Among 50 cases of group A that presented with abscess on FNAC 8 cases had sarcomatous cytology. Clinical presentation of soft tissue sarcoma were studied retrospectively of 40 cases, among which 8 were presented as abscess, 2 were as chronic large hematoma without history of trauma and the most common presentation was as painless slowly growing mass i.e. among 30 cases. Among the cases presented with abscess (group A) 16% of cases were diagnosed as soft tissue sarcoma. 20% of cases of soft tissue sarcoma (group B) presented with abscess formation and 5% of cases with chronic large hematoma without history of trauma.

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## INTRODUCTION

Soft tissue can be defined as non epithelial extra skeletal tissue of the body exclusive of RE system, glia and supporting tissue of parenchymal organs. Sarcomas patients often come with unusual clinical presentation like “chronic hematoma” or “pulled muscle” and undergo prolonged observation or conservative treatment for these conditions by virtue of these facts; prolonged delays before definitive treatment are more common in patient with sarcoma [1]. This study is also aimed to stress on unusual presentation of sarcoma patients that may cause significant delay in the diagnosis to obtain and to provide appropriate therapy.

## AIMS AND OBJECTIVES

This study aimed to conclude that

- 1) Mass presented as an abscess or suspected clinically as chronic large hematoma without history of trauma is alarming because any of them can be a soft tissue sarcoma.
- 2) Unusual presentation of soft tissue sarcomas as an abscess or hematoma is type specific.
- 3) FNAC is the useful tool to differentiate sarcomas

from abscess and to avoid tumor spillage that can happen with incision and drainage.

## MATERIAL AND METHOD

In this study two groups of cases were selected;

- A) 50 cases of abscess forming mass anywhere in the body.
- B) 40 cases of soft tissue sarcomas.

In 50 cases of group A presented with abscess were studied prospectively by performing FNAC from margins of the mass. Slides were made and fixed with cytofix (99.98% methanol). Slides were stained with routine hematoxylin and eosin stain (H&E). In suspected cases incisional biopsy from the margins were performed with prior antibiotic coverage. Tissue was processed in automatic tissue processor, paraffin wax blocks were made & microscopic morphology was studied after routine H&E staining.

40 cases of histopathologically proved soft tissue sarcomas were studied retrospectively for clinical presentation as to observe that unusual presentation of sarcoma is type specific.

## OBSERVATIONS AND RESULT

**Table 1.** Clinical presentation (n=90)

No	CLINICAL PRESENTATION	GROUP A (N)	GROUP B (N)
1	Abscess	50	8
2	Chronic hematoma	0	2
3	Mass	0	30
	Total cases	50	40

**Table 2.** Histological type and clinical presentation

No	HISTOLOGICAL TYPE	GROUP A* (N)	GROUP B (N)			TOTAL (N)
			ABSCCESS	CHRONIC HEMATOMA	MASS	
1	Rhabdomyosarcoma	2	2	0	5	9
2	Malignant Fibrous Histiocytoma (MFH)	1	1	0	5	7
3	Liposarcoma	3	3	0	6	12
4	Leiomyosarcoma	0	0	0	5	5
5	Fibrosarcoma	0	0	0	6	6
6	Epitheloid Sarcoma	0	0	2	0	2
7	Kaposi' sarcoma	0	0	0	1	1
8	Ewing's sarcoma	2	2	0	0	4
9	MPNST	0	0	0	1	1
10	Alveolar Soft part sarcoma	0	0	0	1	1

\*All cases of group A were presented as abscess so data shows number of cases that were diagnosed as sarcoma. Cases presented with abscess formation i.e. 8 were common with group A & B.

**Table 3.** Histological and cytological correlation

No	CYTOLOGICAL DIAGNOSIS	No of CASES	HISTOLOGICAL DIAGNOSIS (N)
1	Pleomorphic sarcoma	2	Pleomorphic Liposarcoma (1)
			MFH (1)
2	Round cell sarcoma	4	Ewing's sarcoma (2)
			RMS (2)
3	Myxoid sarcoma	2	Liposarcoma (2)

## DISCUSSION

This study constitute with two way analysis producing common message that “any abscess or chronic large hematoma without history of trauma can be a soft tissue sarcoma behind the curtain of unusual presentation.”

In present study two subsets of cases were selected for analysis. Among 50 cases of group A that presented with abscess; FNAC from margins were performed before incision and drainage and from those cases 8 cases had sarcomatous cytology and typing was difficult on FNAC study. So, the cytological diagnosis

like Round cell sarcoma, pleomorphic sarcoma and myxoid sarcoma were made.

FNAC has a role to play in the diagnosis of some soft tissue lesions, but its use should be limited because even experienced cytopathologist are offended unable to discern the grade and histological type of sarcoma from the small cellular sample of an aspirate. The advantage of FNAC is that it is relatively atraumatic and minimizes the potential for tumor spillage that can accompany open surgical procedure [2].

Most FNAC specimen from bone and soft tissue sarcoma are recognized easily as sarcoma, but sub typing seems more accurate in bone sarcomas [3].

Clinical presentation of soft tissue sarcoma were studied retrospectively of 40 cases, among which 8 were presented as abscess, 2 were as chronic large hematoma without history of trauma and the most common presentation was as painless slowly growing mass i.e. among 30 cases. This subset of cases was studied to observed type specificity of soft tissue sarcoma having unusual presentation.

Liposarcomas were proved the most common type of soft tissue sarcomas presenting as abscess following by Ewing's sarcoma, rhabdomyosarcoma and rarely malignant fibrous histiocytoma. Epitheloid sarcomas were usually presented as chronic hematoma without any history of trauma.

It is important to reconfirm prior history of trauma and investigate the clinical course and images of patients with unusual presentation of hematoma in the extremities. Repeated biopsies should be performed if necessary. Niimi R et al [4] had reported two cases of soft tissue tumor mimicking hematoma. Among which one was leiomyosarcoma and another was epitheloid sarcoma.

Taieb S et al [5] had observed that in absence of history of trauma should alert the clinician to the possibility that the abnormality may represent haemorrhage in to a trauma and not just hematoma, even in hemophilic patients doubt should be resolved with a biopsy to avoid tragic consequences of missed sarcoma.

Haartz B et al [6] had reported a case of Kaposi's sarcoma mimicking vulvar abscess i.e. wolf in sheep's clothing. Similarly Rogers R et al [7] also had a case report of pleomorphic liposarcoma clinically diagnosed as Bartholin's gland abscess.

## CONCLUSIONS

The present study was concluded with following points.

- 1) Among the cases presented with abscess (group A) 16% of cases were diagnosed as soft tissue sarcoma.
- 2) 20% of cases of soft tissue sarcoma (group B) presented with abscess formation and 5% of cases with chronic large hematoma without history of trauma.
- 3) Painless slowly growing mass as usual remained common presentation of soft tissue sarcoma but abscess and hematomas are also alarming suspicion for clinician.
- 4) Unusual presentation of soft tissue sarcomas as an abscess formation has type specificity as liposarcomas (37.5%) commonly presented as abscess followed by ewing's sarcoma and rhabdomyosarcoma (25%) and rarely MFH.
- 5) Epitheloid sarcoma can unusually presented as large chronic hematoma without history of trauma.
- 6) Last but not the least before I & D of any abscess FNAC should be performed to avoid tumor spillage and recognize sarcomas early by avoiding conservative treatment.

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