

FACTORS LEADING TO UNPLANNED SURGERIES IN BONE & SOFT TISSUE TUMOURS



&

IT'S IMPACT ON FINAL OUTCOME

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Introduction

- **Unplanned Surgery** : Defined as **any surgical intervention** done ***without adequate work up*** (imaging, biopsy etc) and/or ***without adhering to oncological principles***
- ***Questions asked*** in this study:
 - What influences a surgeon to perform unplanned surgery ?
 - How an unplanned surgery affects final oncological / functional outcome ?

Methodology

Retrospective analysis to look for -

- Adequacy of pre operative work up (X-rays, MRI, biopsy etc.)
- Time gap between index surgery and referral to cancer centre
- Type of surgery/treatment offered by Orthopaedic Oncologist & it's intent
- Clinical outcome

Results

BONE

18 Patients : 21 Unplanned sx

5 pathological fracture

ADEQUACY OF WORK UP PRIOR TO UNPLANNED Sx

MRI Done : 11/21

D/D of malignancy : 3

Biopsy done : 4/21

3 inconclusive, 1 reported benign

SOFT TISSUE

10 Patients : 15 Unplanned Sx

MRI done : 2/15

D/D of malignancy : 0

Biopsy done : 2/15

1 Inconclusive, 1 Reported benign

Results

- Mean time gap between index surgery & referral : 16 months(1-108 months)

CLINICAL OUTCOME

ADDITIONAL SURGERY REQUIRED : 25 Pts **(8 WITH PALLIATIVE INTENT)**
AMPUTATION/ ROTATIONPLASTY : 13 **(4 WITH PALLIATIVE INTENT)**
MEAN FOLLOW UP : 13 MONTHS (2-24)
PATIENTS DIED OF DISEASE : 6
PATIENTS ALIVE WITH DISEASE : 2

CASE EXAMPLE 1 (Leiomyosarcoma in 50y/M)

1ST
UNPL
ANN
ED Sx
→

2nd
UNPL
ANN
ED Sx
→

I&D Done
for Pain

Presented with
swelling, discharge
& Mets

HQ Amp
Palliative
Died 15 M later

THR DONE FOR PATH #



Microscopic Feature:
 The S/S admixture of inflammatory cells including neutrophils, lymphocytes and plasma cells, fibrosis, bone necrosis and new bone formation.

Bx WRONGLY REPORTED AS INFECTION

Impression : 1 Chronic Osteomyelitis.

**20Y/M
 I&D DONE
 ELSEWHERE
 (W/O WORK UP)**

**STARTED ON
 PALLIATIVE CARE
 ALIVE WITH
 DISEASE**

**OSTEOSARCOMA
 ALREADY METASTATIC
 AT PRESENTATION TO
 ORTHOPAEDIC ONCOLOGIST
 (6 MONTH AFTER 1st Sx)**

CASE EXAMPLE

2

Conclusions

- Any suspected tumour should be **worked up completely before any definitive surgery**
- Radiologist report should be confirmed with biopsy
- Biopsy report should correlate with clinico-radiological findings
- Any **unplanned surgery should be avoided** since it :-
 - **Compromises the final outcome** both oncologically & functionally
 - Increases the cost & morbidity of treatment
 - **Makes surgeon vulnerable to medicolegal litigations**

- ❖ Smolle MA et al. The Prognostic Impact of Unplanned Excisions in a Cohort of 728 Soft Tissue Sarcoma Patients: A Multicentre Study. Ann Surg Oncol (2017) 24:1596–1605
- ❖ Tedesco et al. Unplanned resection of sarcoma. J Am Acad Orthop Surg 2016;24: 150-159