

Biopsy in Musculo-Skeletal Tumors.

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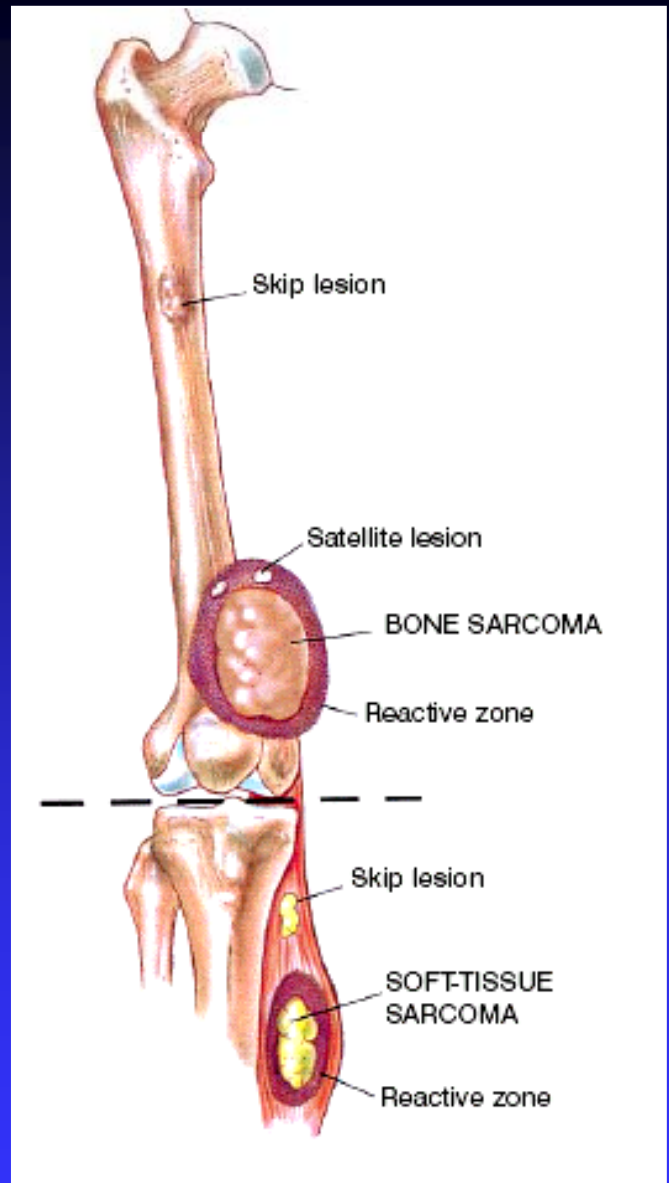
Pillars of the Dx.

A. Clinical Hx. & Exam.

B. Imaging.

C. Blood tests.

D. **Biopsy**



Aim of the Biopsy

Will confirm the Dx.

Guide to the R/

= Myositis Ossificans

= Stress #

be careful

Bx → read as Osteosarcoma

Bx. 1st

Searching for 1ry tumor
with obvious bone mets.

Why we still doing it wrongly ?

Wrong biopsy

Technically

Most biopsies are simple.

Poor & bad biopsy technique

1. Taking Bx. away of the site of possible future Surgery



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**2. Dissection and opening I.M
planes, joint cavity ---etc.
→ Tumor contamination.**



3. Hematoma → spread of tumor cells.

4. large incision Open Bx.





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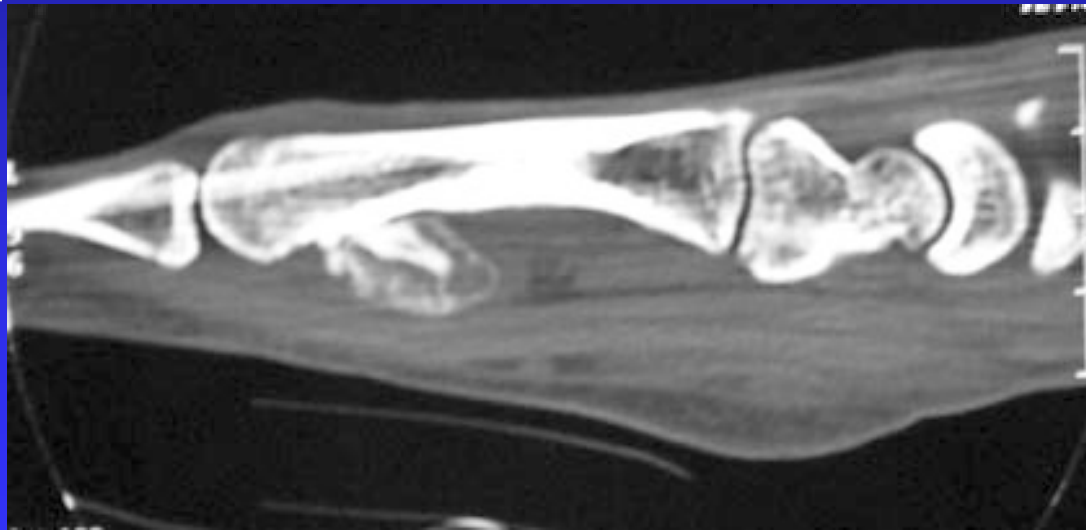


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Paraosteal O.Sarcoma

**Bx of the tumor surface →
interpreted as Osteochondroma.**

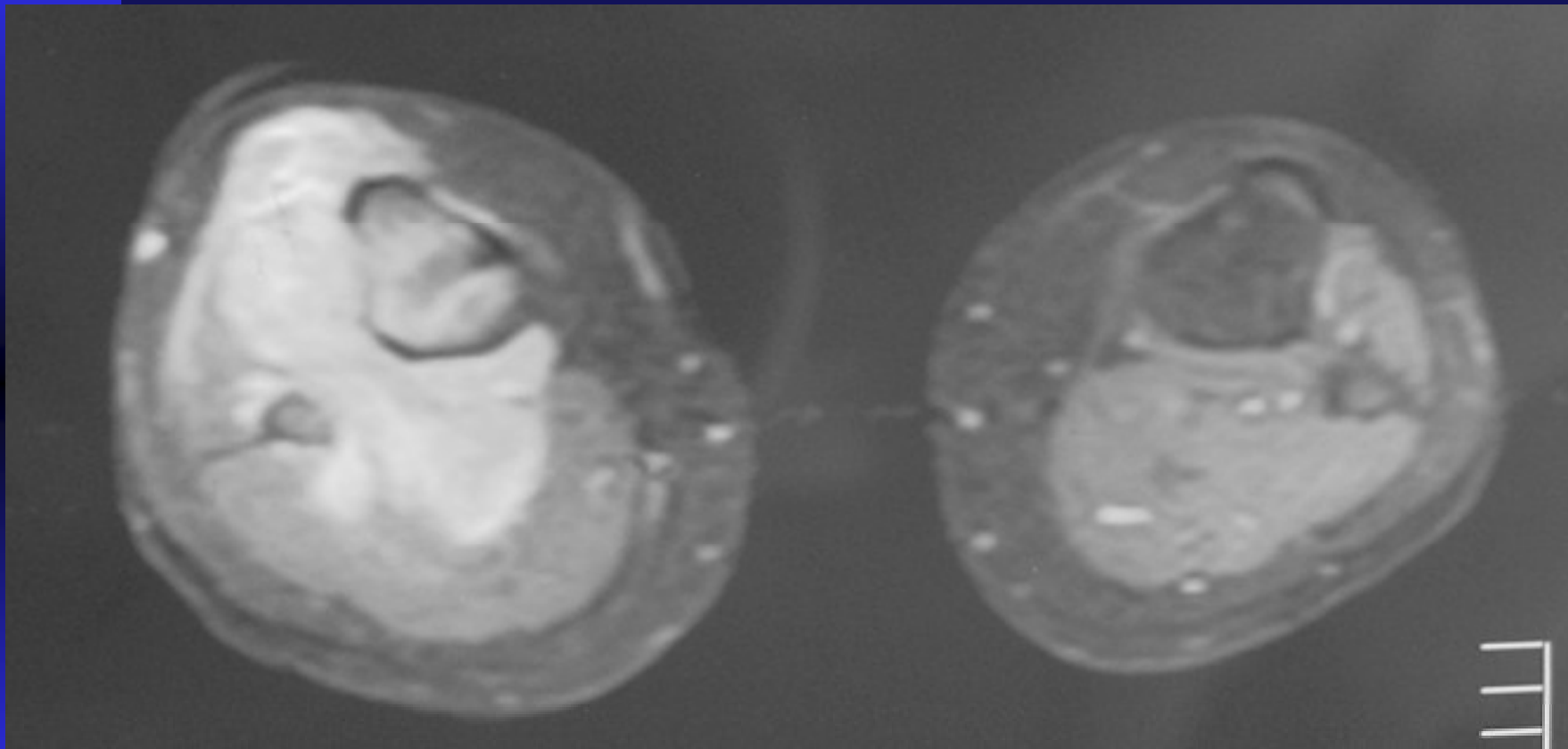


OPD aspiration



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597 Patients

Major errors in Dx. = 13.5%.

Complication rate = 15.9%.

Unnecessary amputations = 3%.

Mankin et al ,JBJS, 1996.

Which biopsy technique

- * **Incisional biopsy !!! ??**
- * **Needle biopsy (Trucut).**
- * **Trocar biopsy.(Jamshidi)**
- * **Excisional biopsy.**

Who should do the Biopsy?.

- = Not the radiologist. Except.!!**
- = Not the resident Dr.**
- = Not the Dr. who thinks always amputation for tumors**
- = Not the Dr. in the peripheral H.**
- = Not the Dr. who is not dealing regularly with Tumors.**

**Bx. should be done by
the Surgeon who is
going to do the final R**

If you decide to do Bx.

- 1- Careful studying of the imagings**
- 2- Small longitudinal incision.**
- 3- Sharp dissection.**
- 4- Plug bone by PMMA.**

Site of the biopsy

Extra Osseous Component of the Tumor, Why????

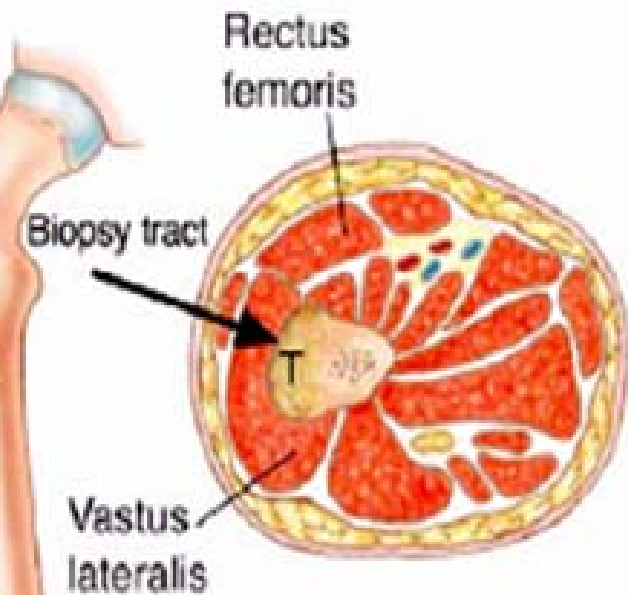
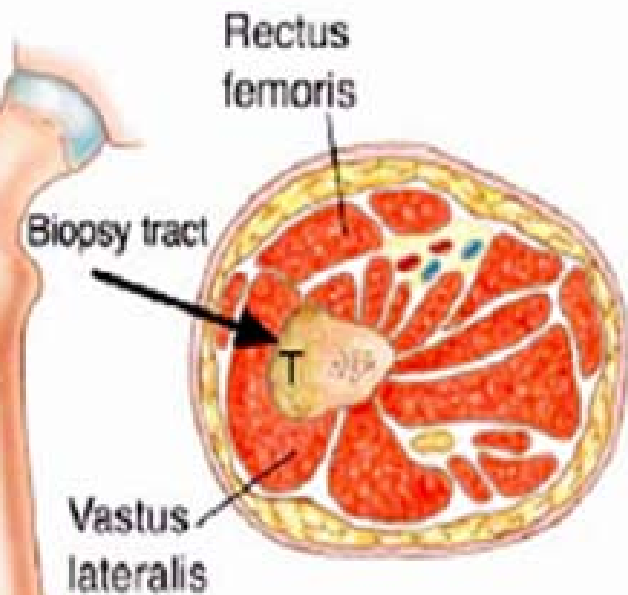
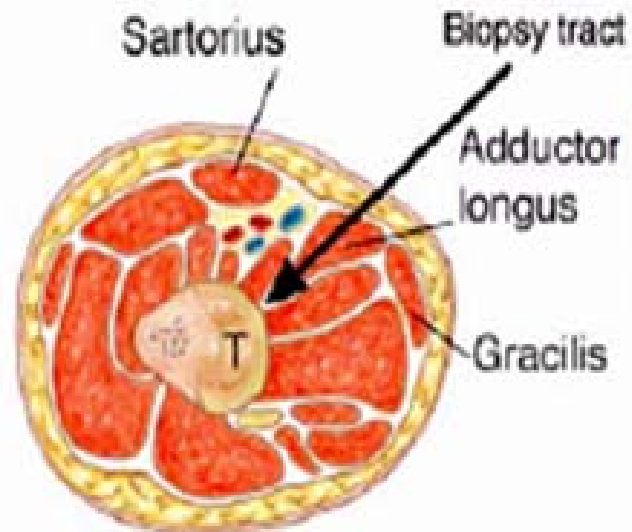
- * >Dx (Center necrosed)
- * To avoid #.
- * F.S. can be done quickly.

- 5- Drain tract in incision line.**
- 6- Close in layers.**
- 7- Subcuticular skin.**

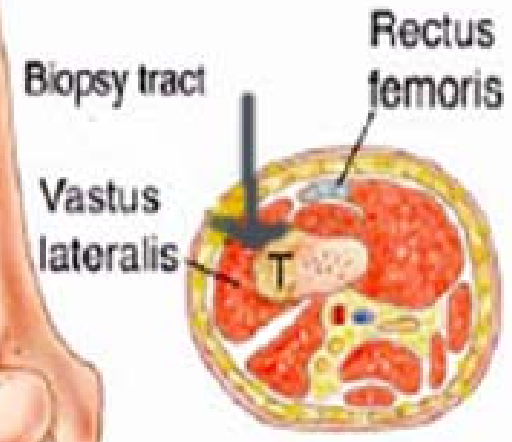
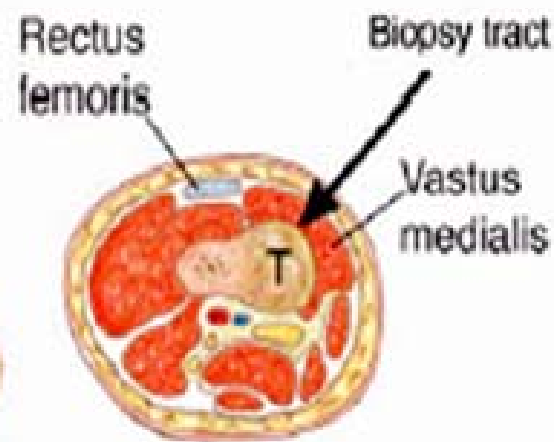
MEDIAL LESIONS

LATERAL LESIONS

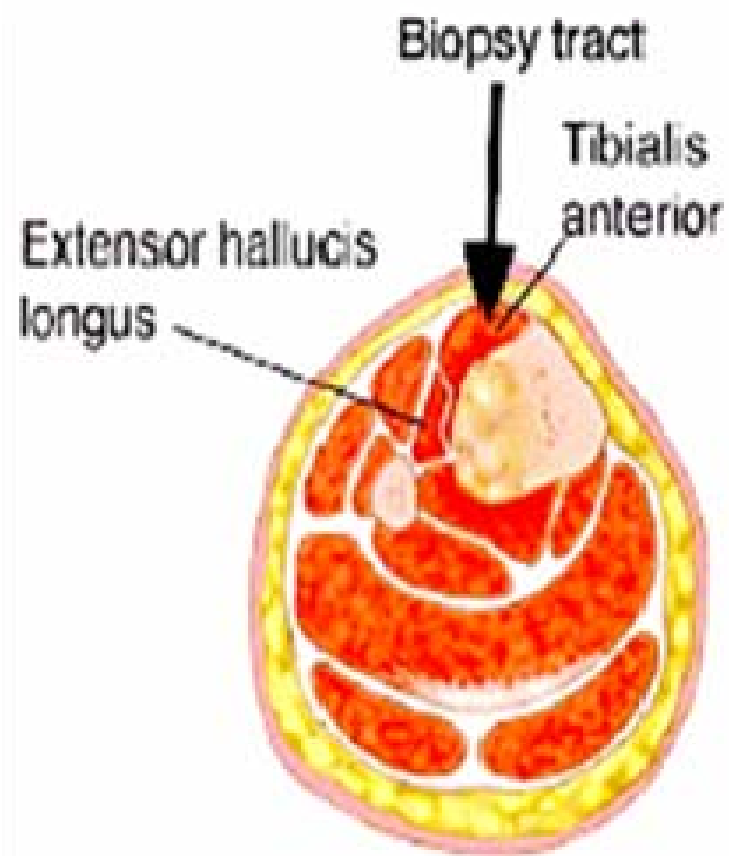
PROXIMAL FEMUR



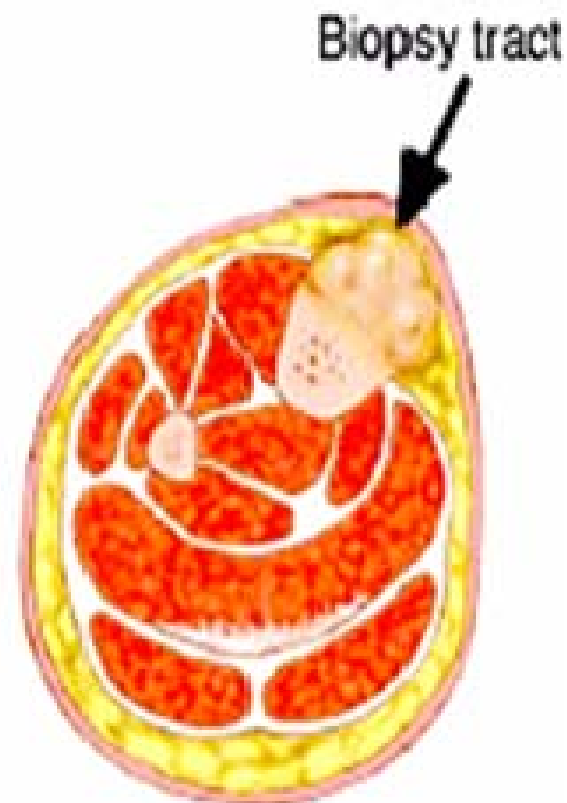
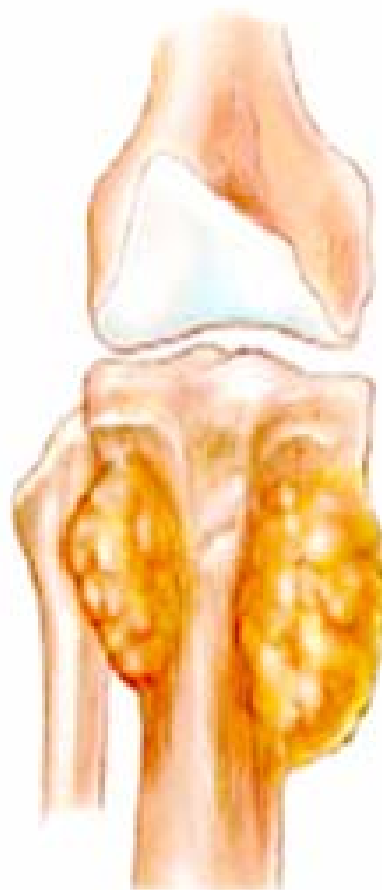
DISTAL FEMUR



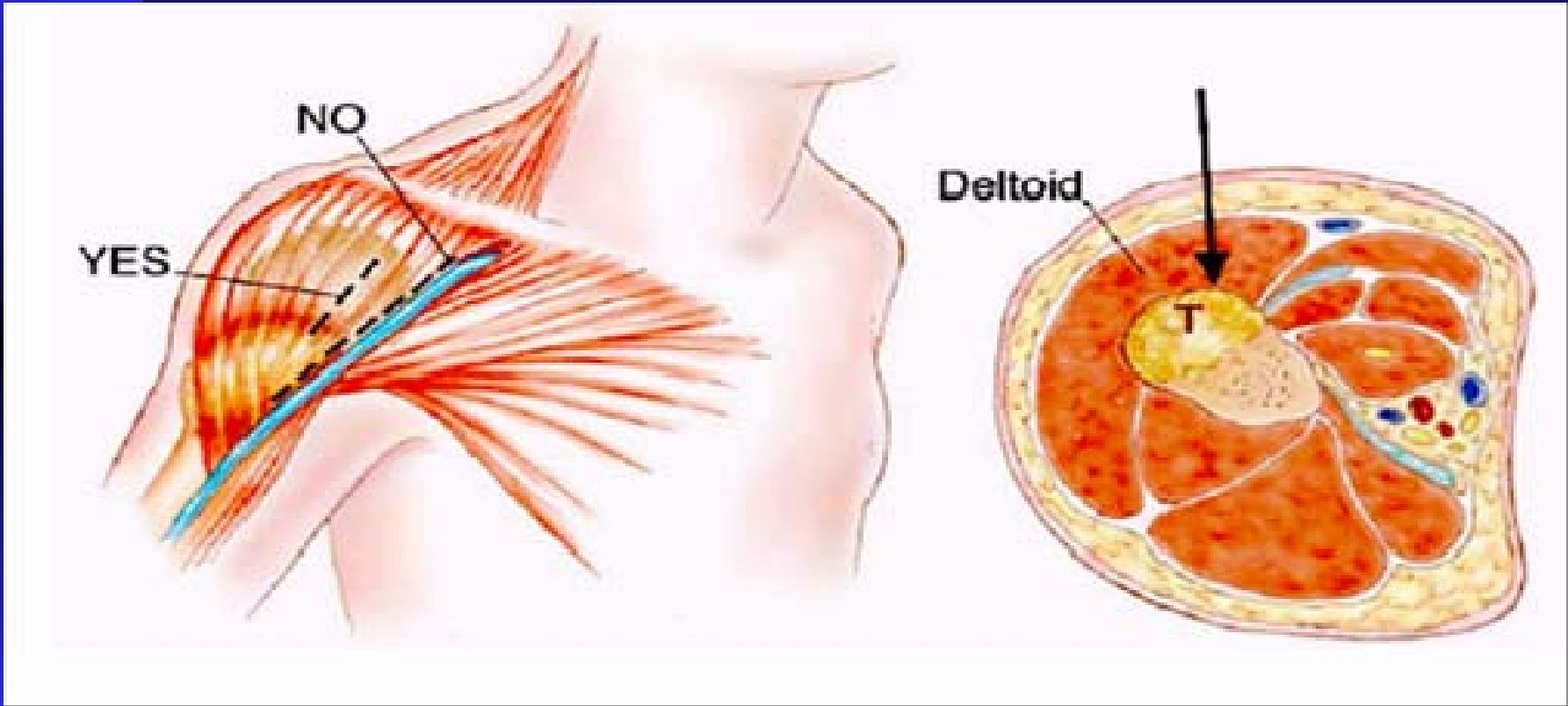
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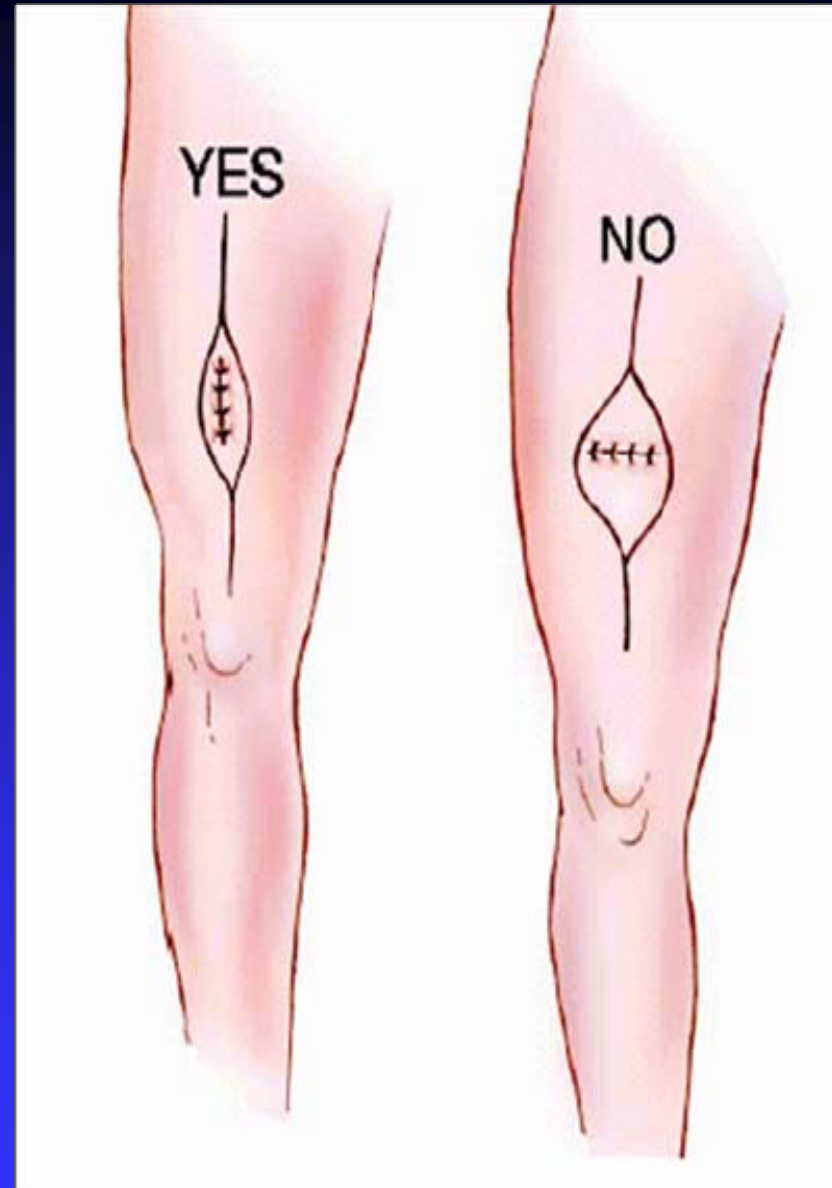
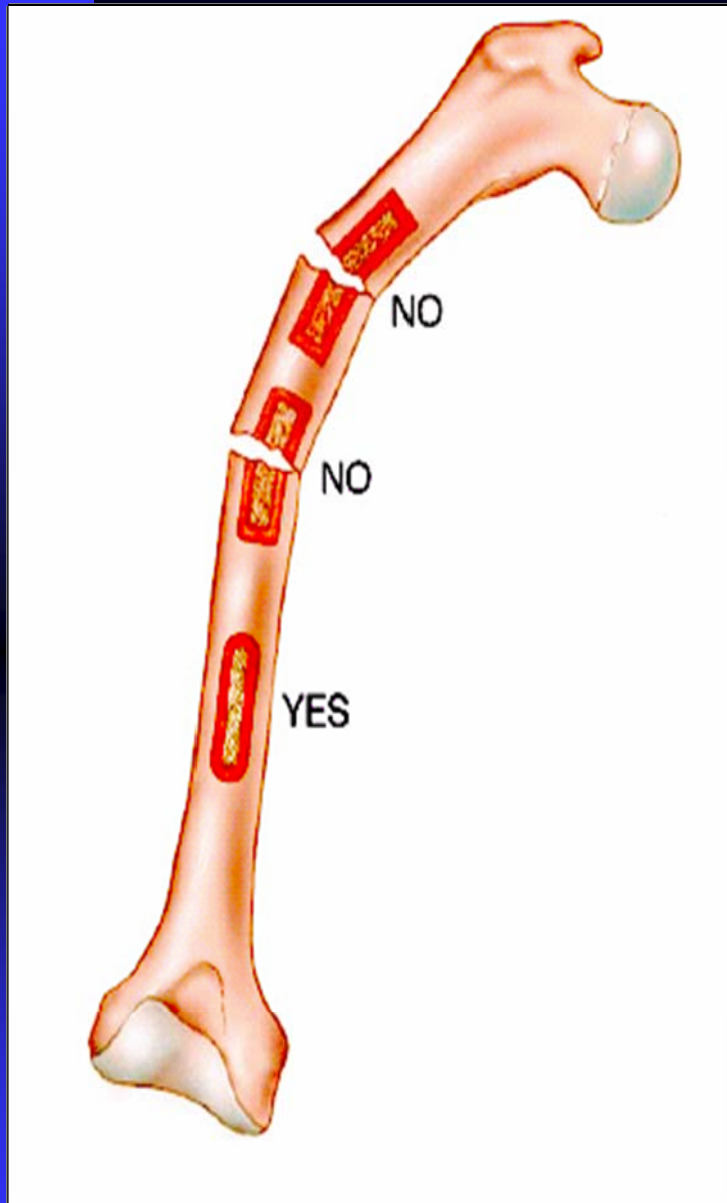


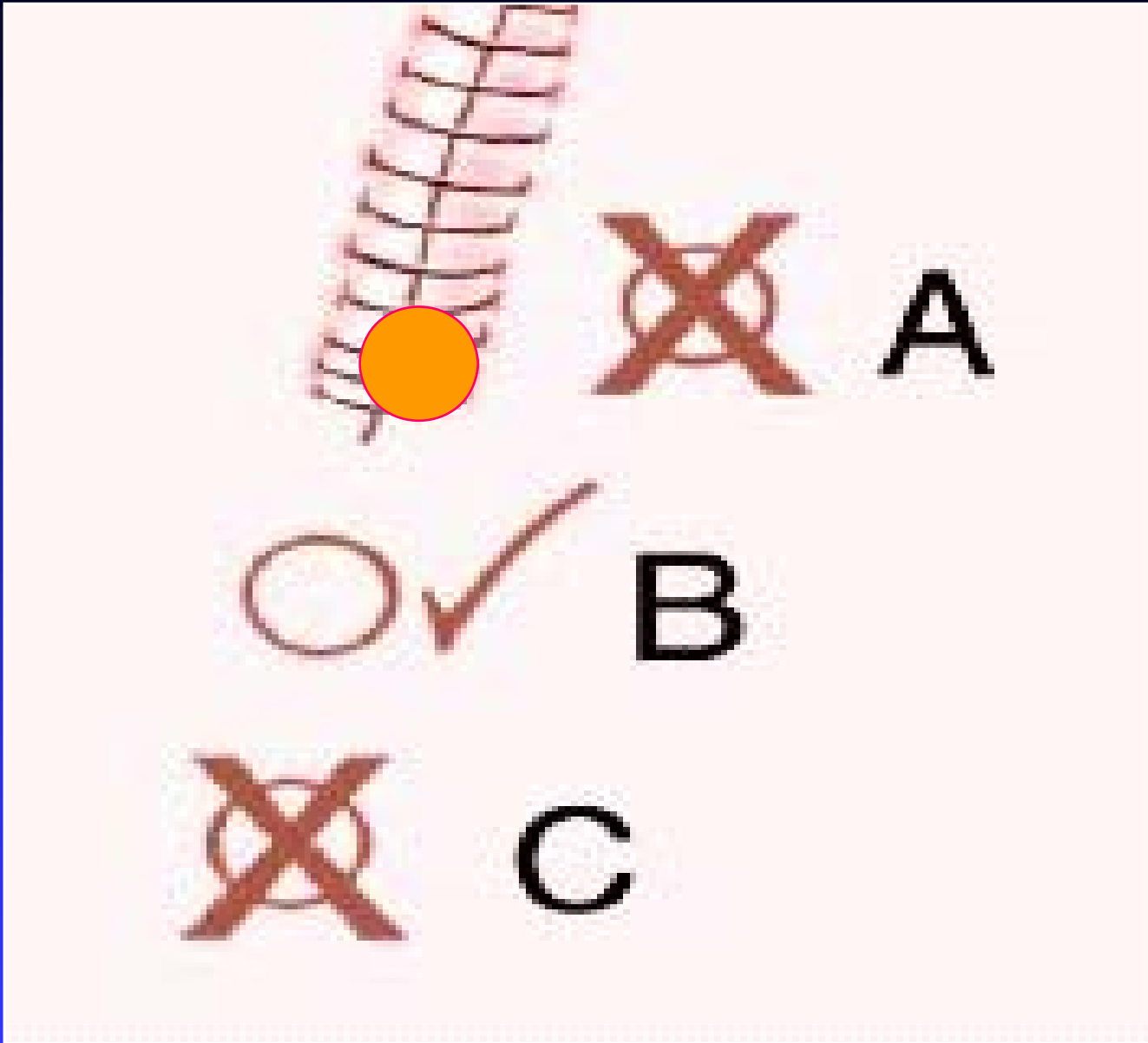
LATERAL LESION



MEDIAL LESION









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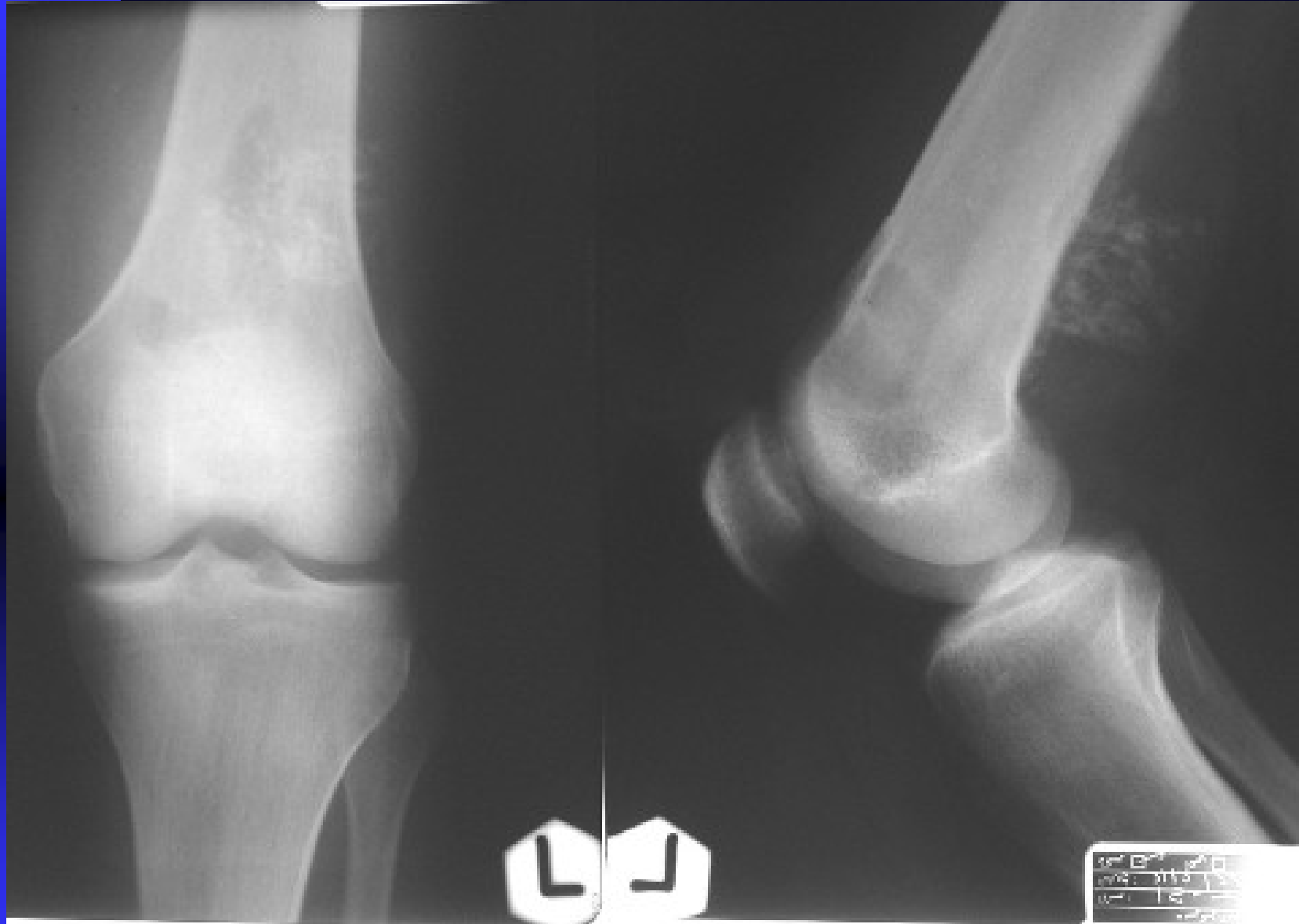


Good

POOR



General Surgeon biopsy



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Worst



front



and back



Our technique

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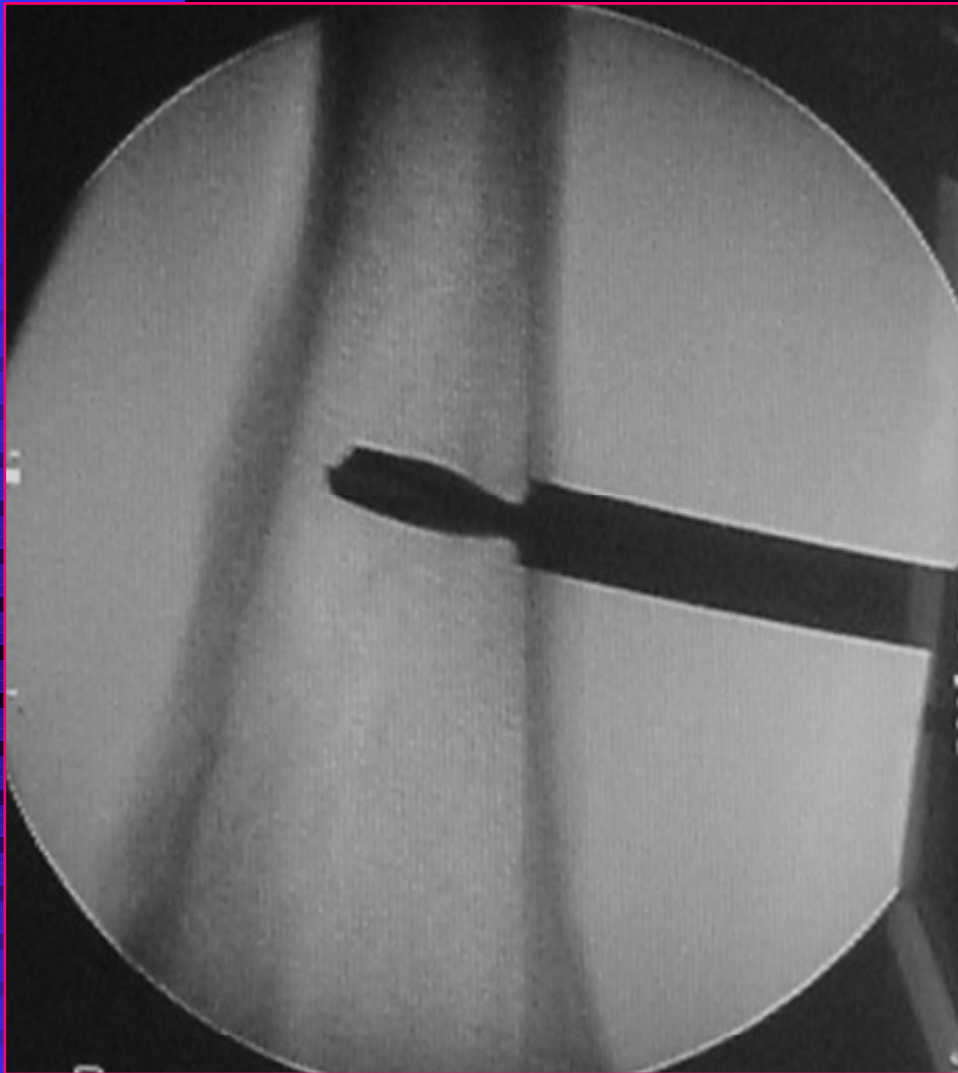
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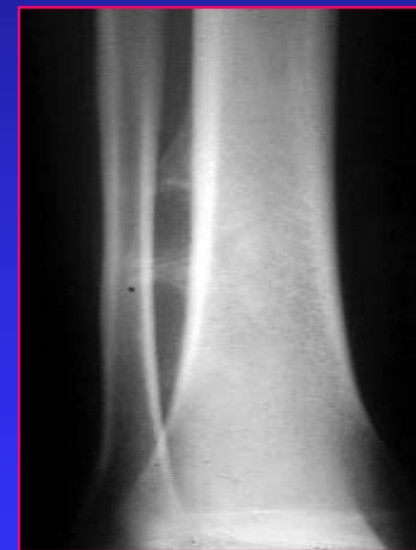
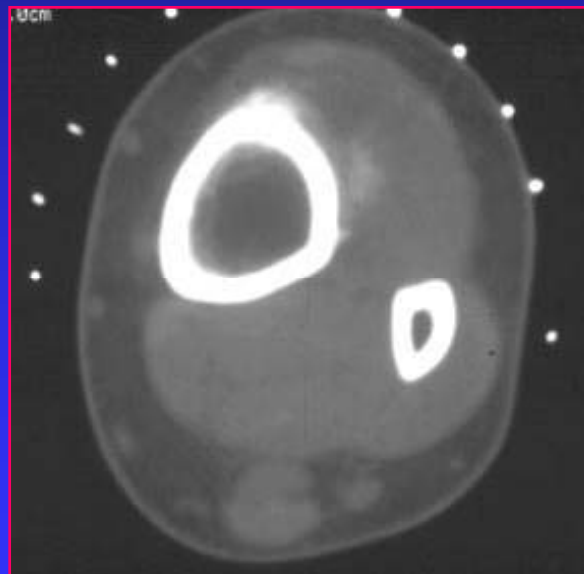


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Excisional Bx.

Potentially malignant. T.



Excisional Bx.

Only in obvious benign lesions.



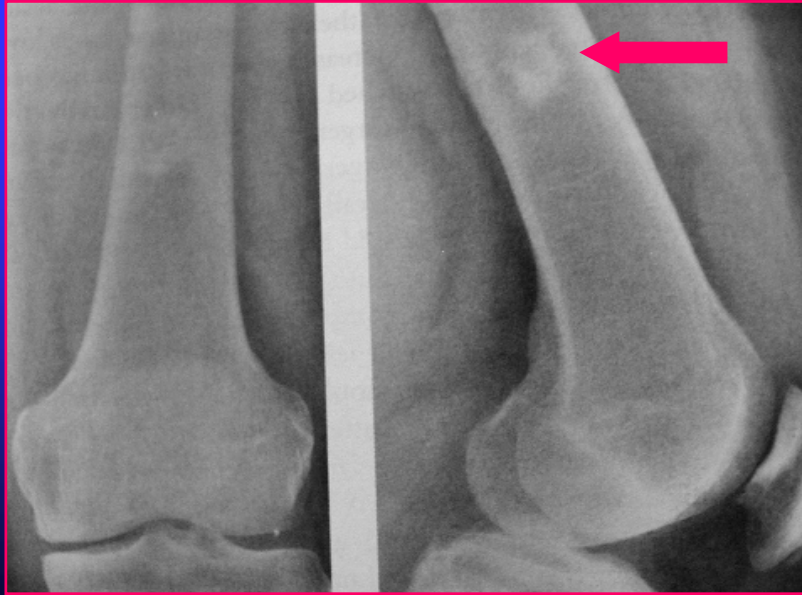
**The only benign soft
tissue lesions.**

Hematoma, Lipoma



Unnecessary Bx or oper. on asymp. benign lesions







FDO.PROGRESSIVA



Ignoring the team approach

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psychiatrist

**Nursing &
Support staff**

Radiologist

Surgeon

Oncologist

Cytopathologist

Histopathologist

In the past

Bx were performed through a large incision with contamination of tissues. !!!!!!!!

قطع الاعناق ولا قطع الارزاق

ايطالية تفضل الموت على بتر ساقها

□ ميلانو (ايطاليا) - (ا ف ب)

تثير حالة ايطالية في الـ ٦٢ تفضل الموت على ان تبتر ساقها المصابة بالغرغرينة، جدلا في ايطاليا حيث تطالب السلطات بان تعالج بالقوة. وكانت الايطالية التي لم يكشف اسمها ادخلت في ٢٥ كانون الثاني احد مستشفيات ميلانو بعد اصابتها بالغرغرينة في ساقها اليمنى نتيجة مرض السكري. وطلب الاطباء منها الاذن بان تبتر ساقها لانقاذ حياتها لكنها رفضت وعادت الى عائلتها في جزيرة صقلية.

قطع الاعناق ولا بتر الاطراف

Conclusion

- 1- Easy but bad sequale
- 2- Bx. by the definitive Surgeon.
- 3- At the end of staging.

**4-Careful studying of the
imaging**

**5-Risk of unnecessary
amputation.**

6-Limb salvage

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