

## OSTEOSARCOMA– GUIDELINES

### *Suspicious signs suggestive of a sarcoma:*

- The commonest symptom of a primary bone sarcoma is non mechanical pain
- The presence of pain or a palpable mass arising from any bone should be viewed with suspicion
- The presence of any of the following on the X-ray is suggestive, but not diagnostic of a bone sarcoma:
  - ♦ bone destruction
  - ♦ new bone formation
  - ♦ periosteal swelling
  - ♦ soft tissue swelling

## OSTEOSARCOMA

- Primary malignant tumor in which the neoplastic cells produce osteoid matrix
- Most frequent primary cancer of bone
- Majority arise in adolescence, but some are linked to other pathologies (Paget's disease) occurring in the sixth and seventh decades of life
- Conventional osteosarcoma, a high-grade malignancy, accounts for the majority of osteosarcoma
- Other high-grade types are telangiectatic, small cell, and high-grade surface osteosarcoma
- Low-grade central and parosteal osteosarcoma are low-grade malignancies
- Periosteal osteosarcoma is an intermediate-grade osteosarcoma.

### **Biopsy**

- Biopsy diagnosis is mandatory
- Biopsy to be done only after all local imaging is completed
- In most cases a core needle biopsy is adequate ( it may need to be image guided depending on anatomical location of lesion)
- Ideally performed at centre which will do definitive management of disease

### **Serological Investigations**

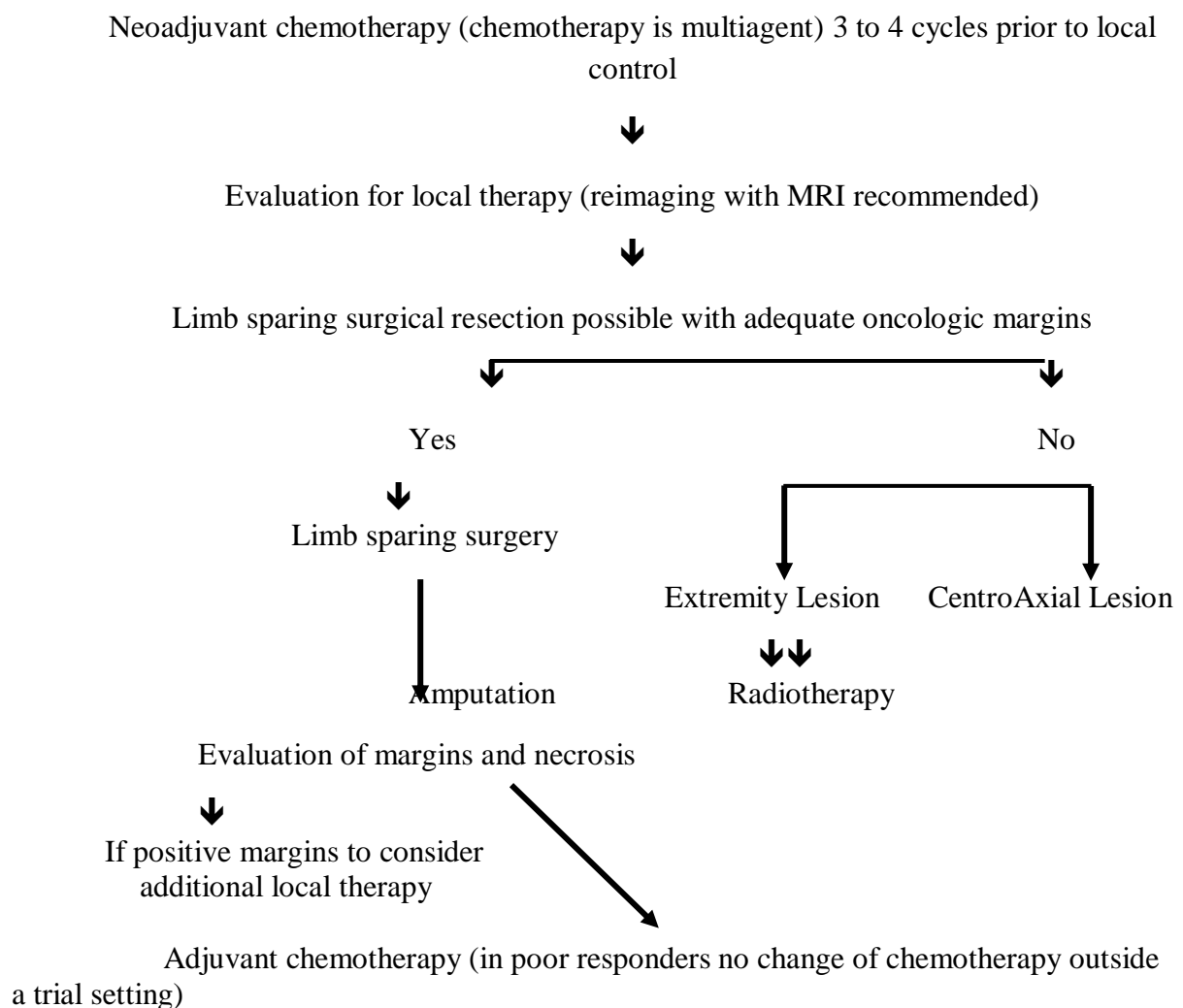
- Though there are no specific laboratory tests for diagnosis some may be of prognostic value; e.g. alkaline phosphatase (ALP) and lactate dehydrogenase (LDH)

### **Staging**

- Local X Ray

- MRI
- CT scan chest
- Bone scan

## HIGH GRADE OSTEOSARCOMA– NON METASTATIC AT PRESENTATION



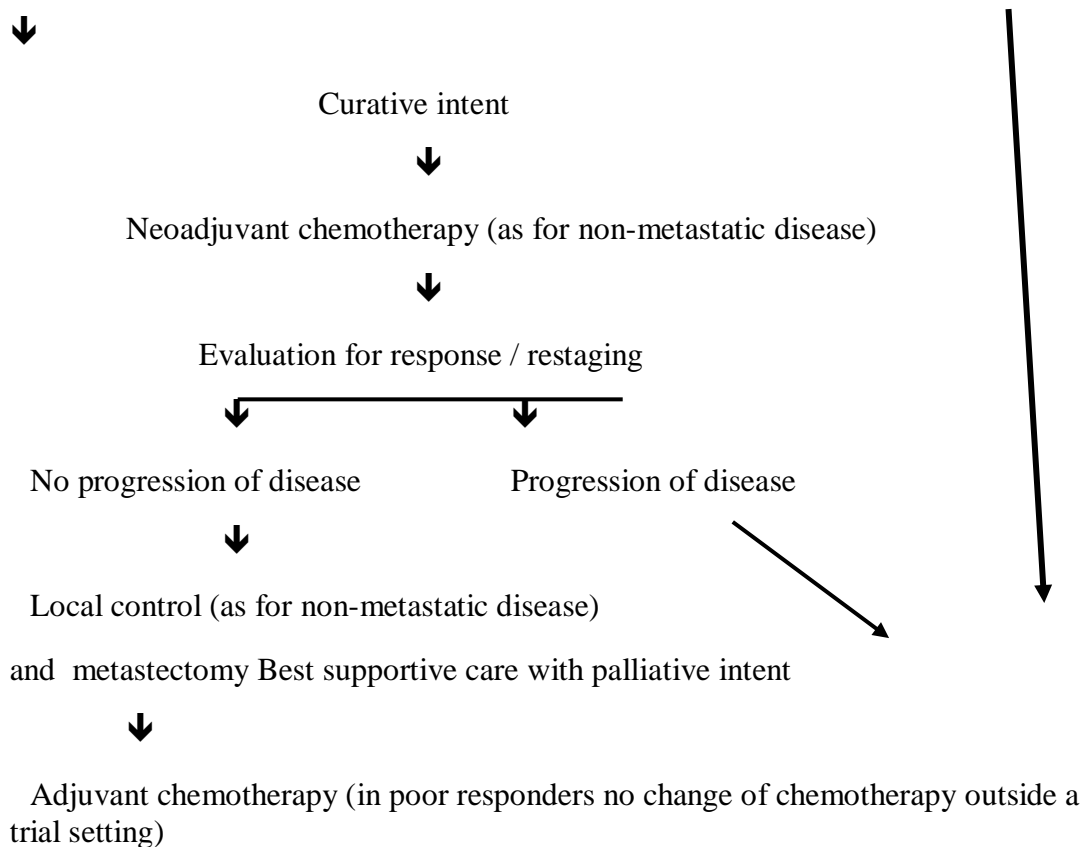
- **Osteosarcomas diagnosed as low grade on initial biopsy (parosteal / low grade intramedullary) are treated with wide excision only. If after**

definitive surgery a high grade component is identified they receive multiagent adjuvant chemotherapy

- Periosteal osteosarcomas are currently treated similar to high grade osteosarcomas

**HIGH GRADE OSTEOSARCOMA – METASTATIC AT PRESENTATION**

To evaluate for intent of treatment based on site and number of metastasis



**Post treatment surveillance:**

- Relapses most often occur to the lungs

- Risk assessment based on tumor grade, tumor size and tumor site may help in choosing the most suitable follow-up policy
- MRI to detect local relapse and CT scan for lung metastases is likely to pick up recurrence earlier but it is yet to be demonstrated that this is beneficial or cost effective compared with clinical assessment of the primary site and regular chest X-rays
- Local examination, chest and local imaging every 3 to 6 months for first 2 years, every 6 months for next 3 years and annually after year 5 is suggested
- Extended surveillance may be necessary to identify and address potential late effects of surgery, radiation and chemotherapy for long term survivors.