Osteosarcoma

Symptoms – swelling & pain

↓

Detailed clinical history

↓

Clinical diagnosis

↓

Basic imaging (local & chest x-ray) & routine blood investigations

↓

Clinico radiological correlation & diagnosis

↓

Local imaging (MRI) &
Additional serological investigations (alkaline phosphatase and lactate dehydrogenase)

↓

Biopsy (core needle biopsy preferred)

(Level III evidence)

↓

Histopathological diagnosis

↓

Staging
(Local X ray & MRI
CT scan chest & Bone scan)

↓

Non-metastatic Osteosarcoma  Metastatic Osteosarcoma

Released Date : April 2017
National Cancer Grid
OSTEOSARCOMA – NON METASTATIC AT PRESENTATION

↓
Multiagent neoadjuvant chemotherapy

(Level I evidence)
↓
Evaluation for local therapy (reimaging with MRI recommended)
↓
Limb sparing surgical resection possible with adequate oncologic margins

(Level II evidence)
↓

Yes

No

Limbsparing surgery

(level II evidence)
↓
Extremity Lesion Center Axial Lesion
↓
Amputation Definitive
↓
Evaluation of margins and necrosis
↓
If positive margins to consider additional local therapy
chemotherapy

(level III evidence)
↓
Adjuvant

(level III evidence)

- 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

(Level III evidence)
- Periosteal osteosarcomas are currently treated similar to high grade osteosarcomas

(Level III evidence)
OSTEOSARCOMA – METASTATIC AT PRESENTATION

Isolated Pulmonary    Non pulmonary or both

Neoadjuvant chemotherapy (as for non metastatic disease)  (Level II evidence)

Evaluation for response / restaging

No progression of disease with

Progression of disease  →  Consider treatment  →  Palliative intent

Local control  (as for non metastatic disease)  (Level III evidence)

and metastectomy

Adjuvant chemotherapy  (Level II evidence)

FOLLOW UP

During postoperative period patient attends rehabilitation services for physiotherapy

Follow up every 3 months for the first 2 years

(Clinical evaluation, Radiological evaluation, Functional evaluation)

Every 6 months for the next 3 years

(Clinical evaluation, Radiological evaluation, Functional evaluation)

Annual follow up after 5 years

(Clinical evaluation, Radiological evaluation, Functional evaluation)  (Level III evidence)
• **Clinical evaluation** – history, examination of local of disease / surgery and examination of draining lymph nodes

• **Radiological evaluation** - X-ray of the local part and Chest X-ray is done at every follow up.
  - CT chest is done every 6 months for the first 2 years and every year for the next 3 years.
  - Bone scan is done annually.

• **Functional evaluation** - using special scores like MSTS Score