



Efficacy of Zoledronic Acid in the Treatment of Benign Osteolytic Bone Lesions



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Zoledronic Acid

- **3rd gen. Bisphosphonate**
- **Reduces osteolytic activity as it**
 - **Inhibits osteoclast bone resorption activity**
 - **Decreases osteoclast formation**
 - **Induces apoptosis in osteoclasts**

Patients

- **Total pts.- 31**
- **Follow-up**
 - 6 to 40 months
- **Age**
 - 8-42 yrs
- **Sex**
 - F-19
 - M-12

Patients

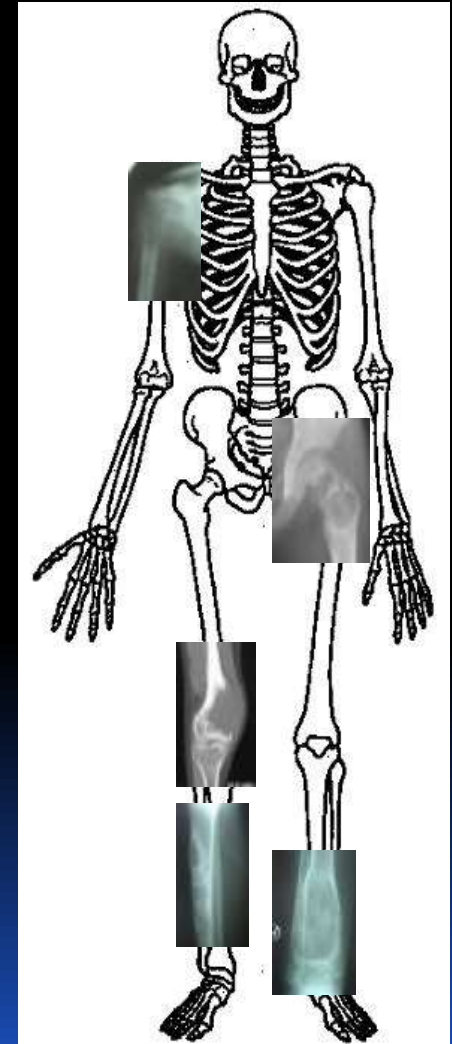
Site

- Femur- 14
- Tibia- 11
- Humerus- 6

Diagnosis

- Fibrous dysplasia- 10
- Non-ossifying fibroma- 4
- Simple bone cyst- 3
- ABC- 3*
- GCT- 11*

*Used as an adjuvant to surgical treatment



Treatment Protocol

- **Zoledronic acid- 4mg I/V every 2 months**
- **Follow-up every 8 wks**
- **Clinical assessment- pain score**
- **Radiological assessment- consolidation**

- 16 yrs, F
- Diagnosis- Non-ossifying fibroma



2 months



4 months



10 months

- **21 yrs F**
- **Diagnosis- Non-ossifying fibroma**



4 months

8 months

- 8 yrs M
- Diagnosis- Simple bone cyst

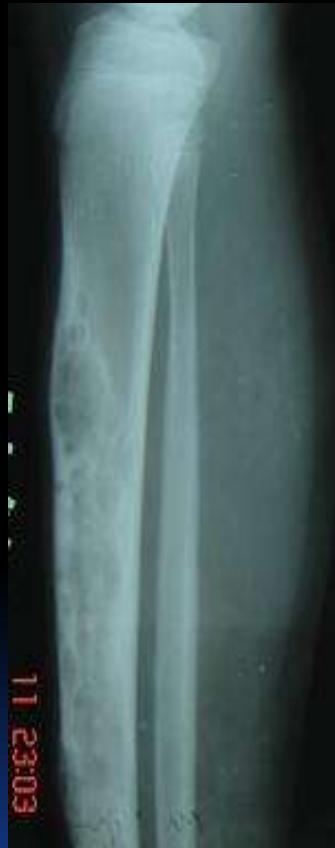


2 months



6 months

- 20 yrs F
- Diagnosis- Fibrous dysplasia



4 months



8 months

- 22 yrs F
- Diagnosis- Fibrous dysplasia



2 months



12 months

- **15 yrs, F**
- **Diagnosis- GCT**



6 months

15 months

- 18 yrs, F
- Diagnosis- GCT



2 months



4 months



8 months

Results

- **Clinical improvement in 30 pts.**
 - **Pain score decreased from 8 to 2 or less**
- **Radiological improvement in 29 pts.**

Conclusions

- **Zoledronic acid is highly effective as an therapeutic agent or as an adjuvant to surgical treatment in treating aggressive benign osteolytic lesions**
- **Reduces the need for bone grafting and extensive surgical procedures**
- **Reduces the incidence of local recurrence**



Thank You