

# Bisphosphonates in FD/MAS

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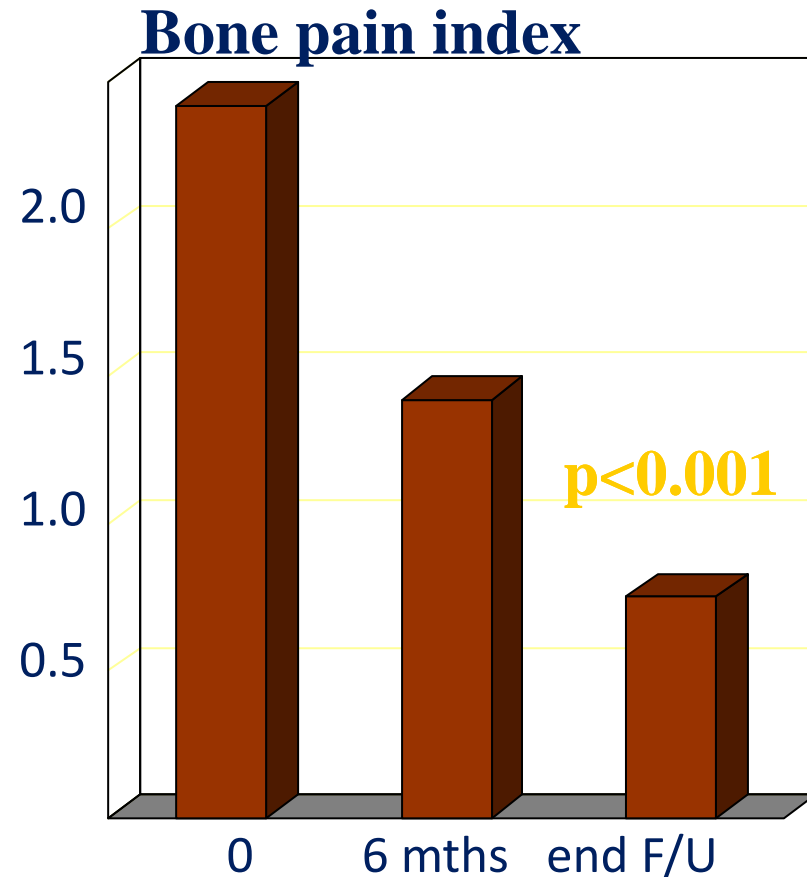
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*Hôpital E Herriot, Lyon*

*Leiden, November 17<sup>th</sup> 2017*

# Response to Pamidronate: Bone Pain

- “ 69 % decrease
- “ 84 % of responders
  - 60% (27) complete response
  - 24% (11) partial response
  - 13% (6) non responders
  - 1 impairment
- “ No relationship with radiographic response



# Radiological Effect of Pamidronate



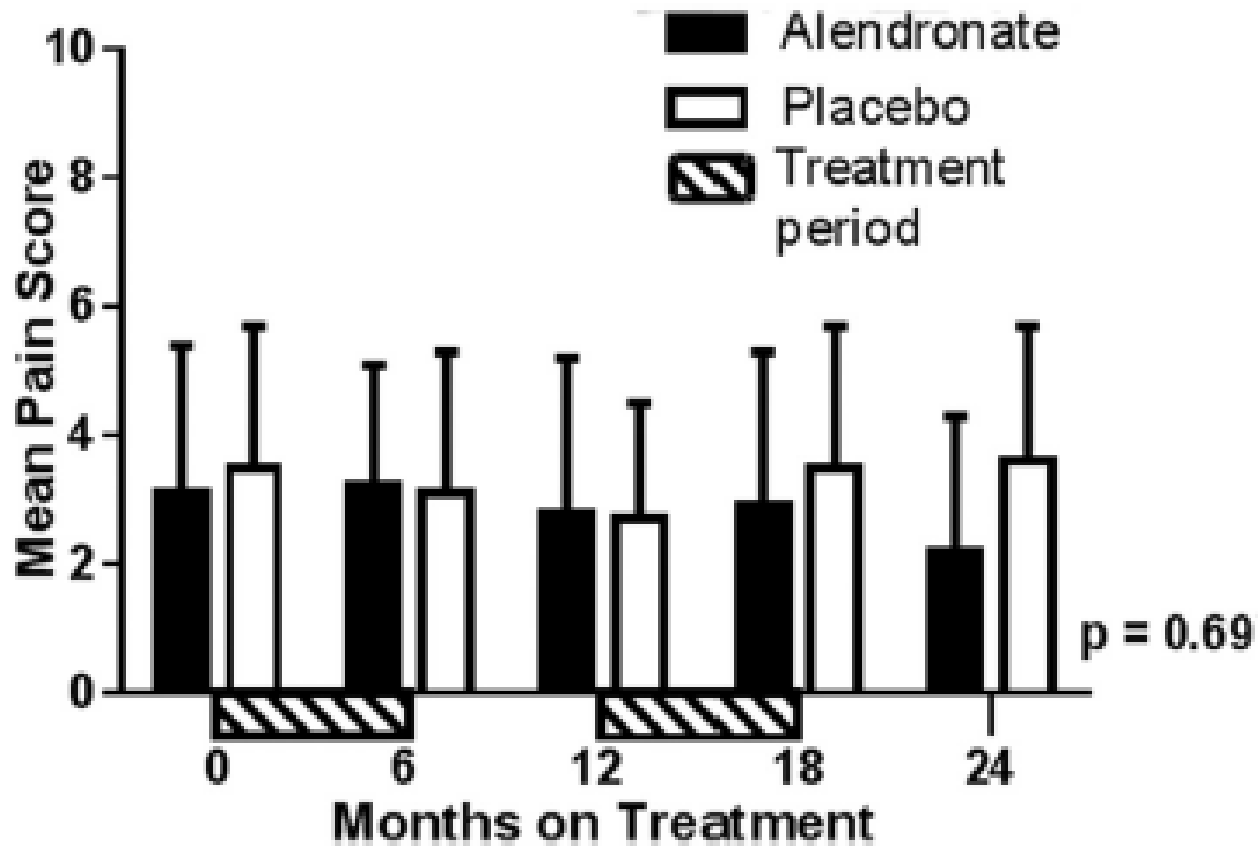
1989



1995

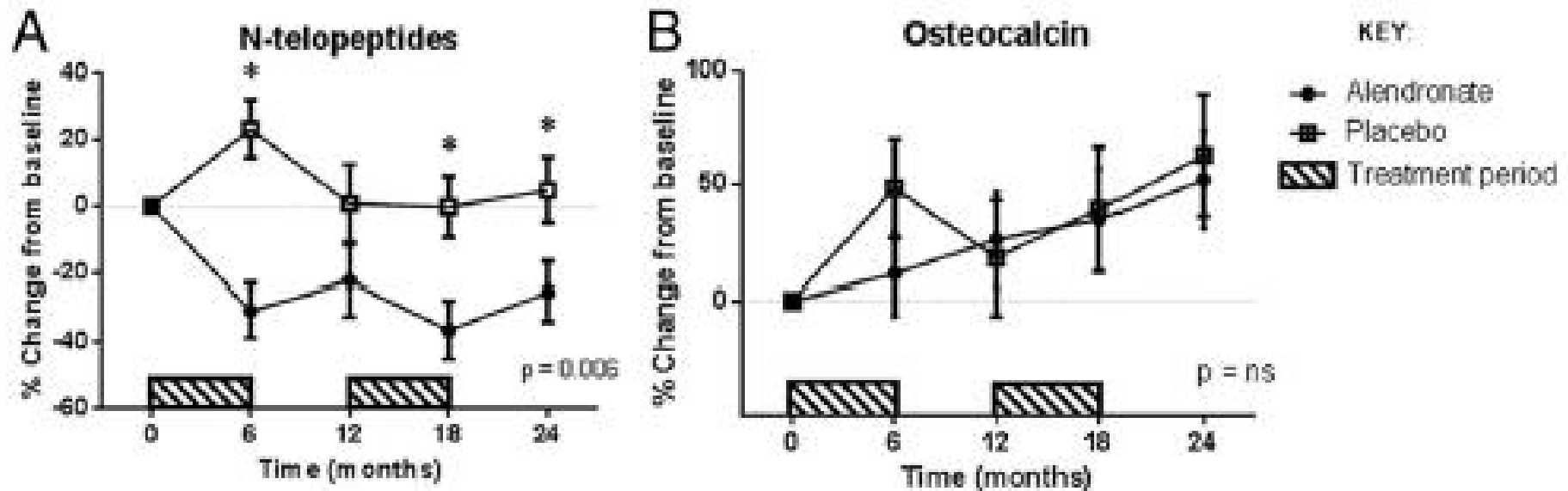
# Fibrous Dysplasia : Treatment with Alendronate

A randomized placebo-controlled trial in 40 patients with polyostotic FD



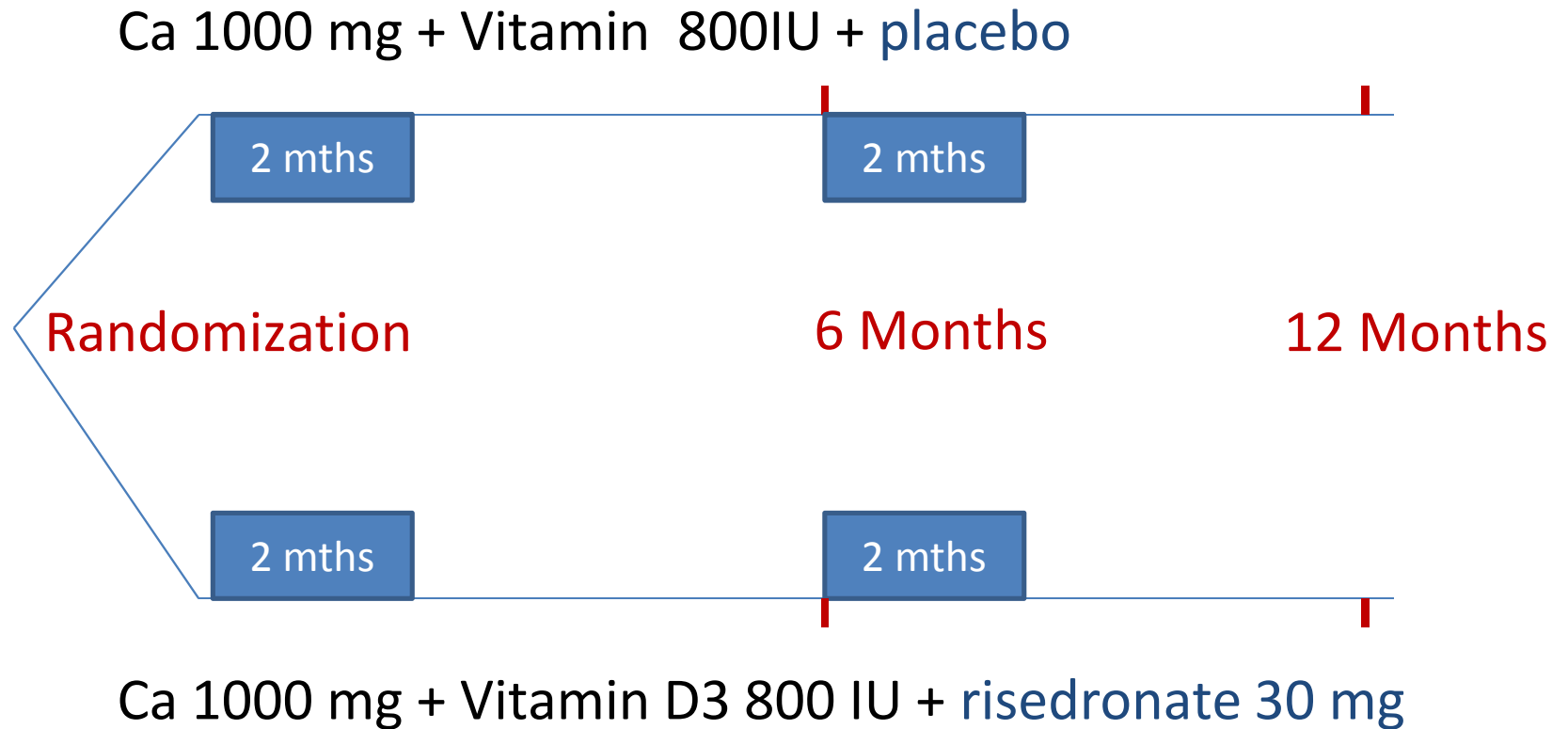
# Fibrous Dysplasia : Treatment with Alendronate:

A randomized placebo-controlled trial in 40 patients with polyostotic FD



# Methods

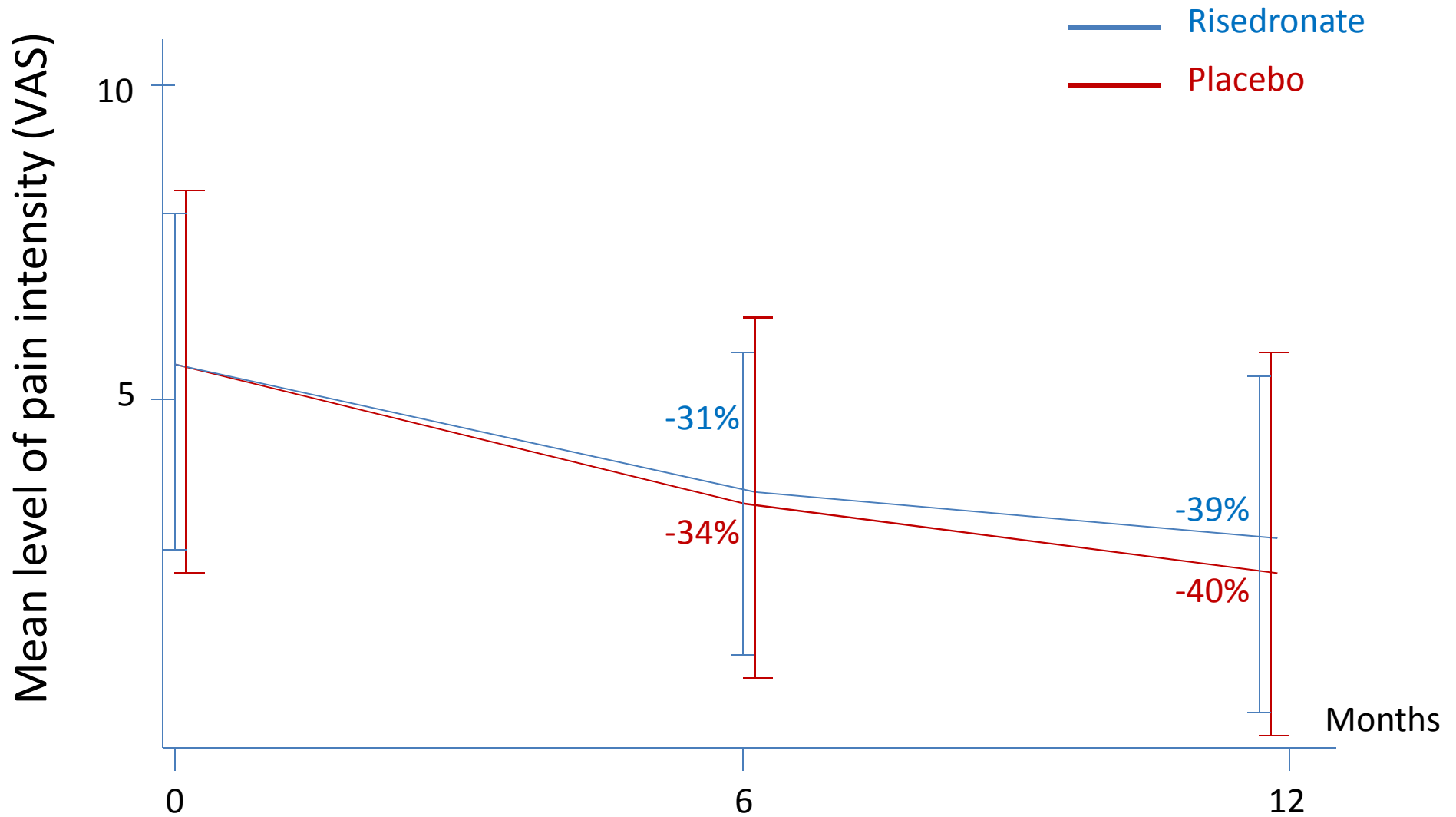
Two repeated cycles of therapy over 1 year



nb: calcitriol + phosphate in those with renal phosphate wasting

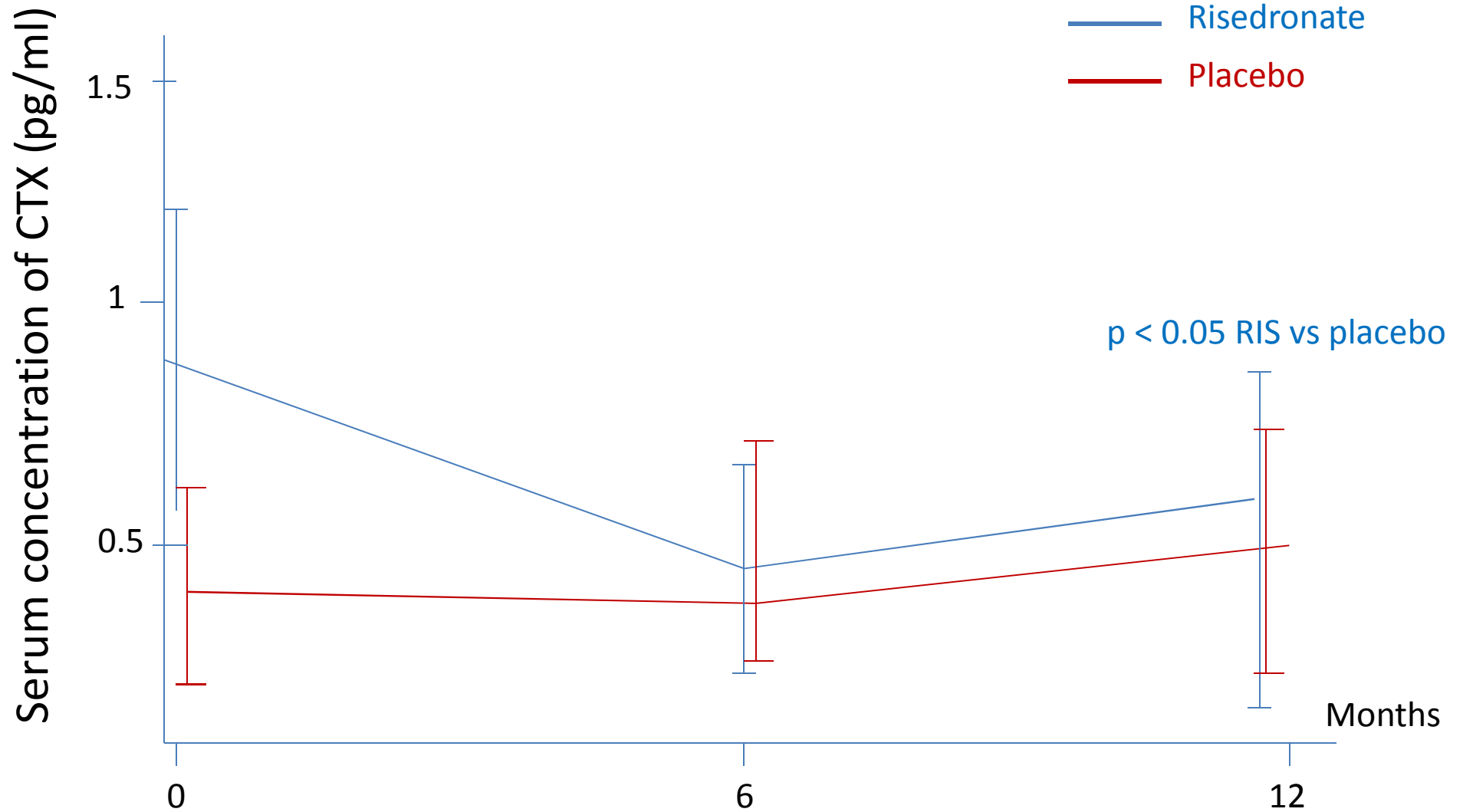
# Results

## Change in bone pain (primary endpoint)



# Results

## Change in serum CTX



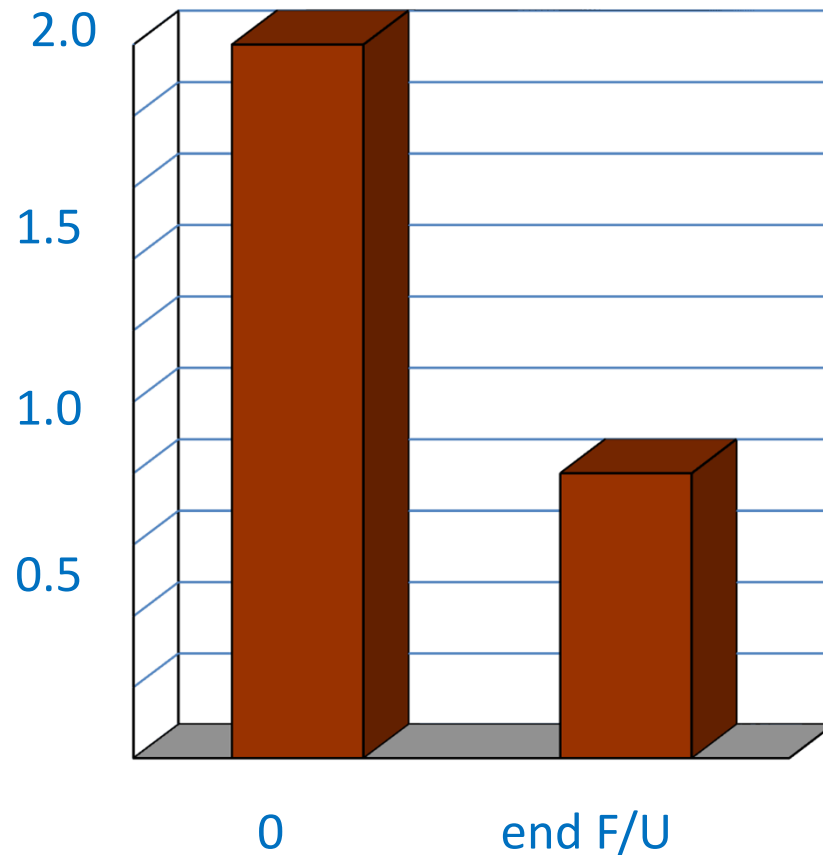


# Treatment of FD with Zoledronic Acid

- In those who resist to pamidronate
- Nine patients, all polyostotic disease, 9 yrs on pamidronate
- 4 mg every 6 months
- Ca vit D, phosphorus supplements
- Mean treatment duration: 18 months

# Effect of ZOL on Bone Pain

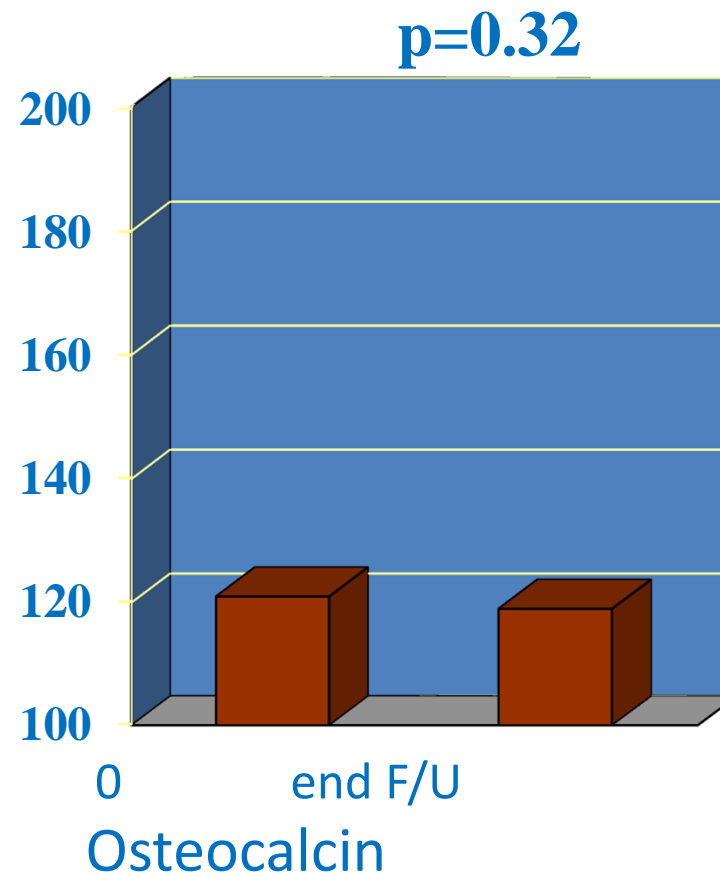
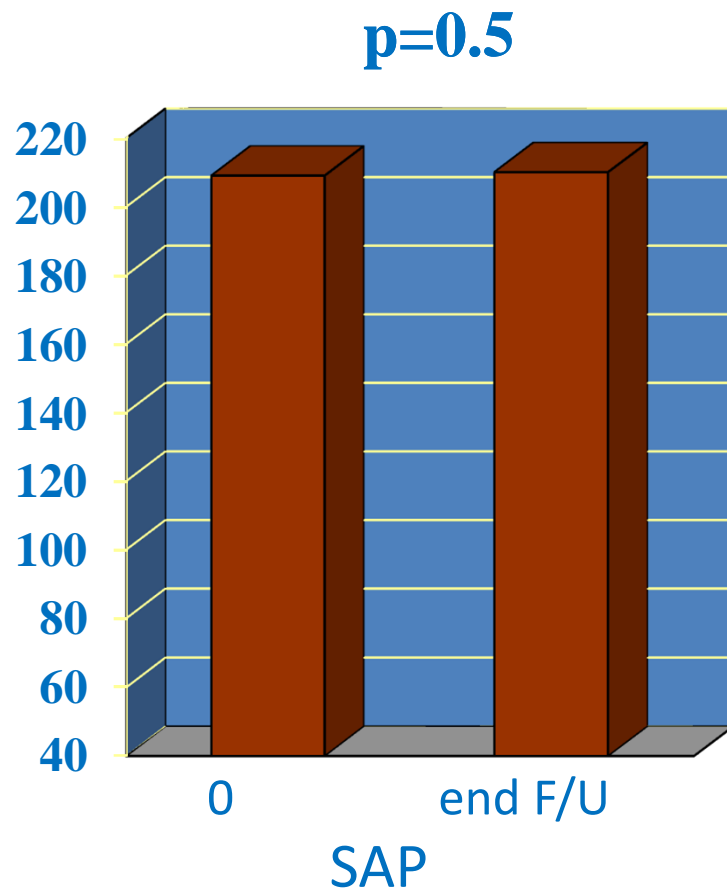
Bone pain index



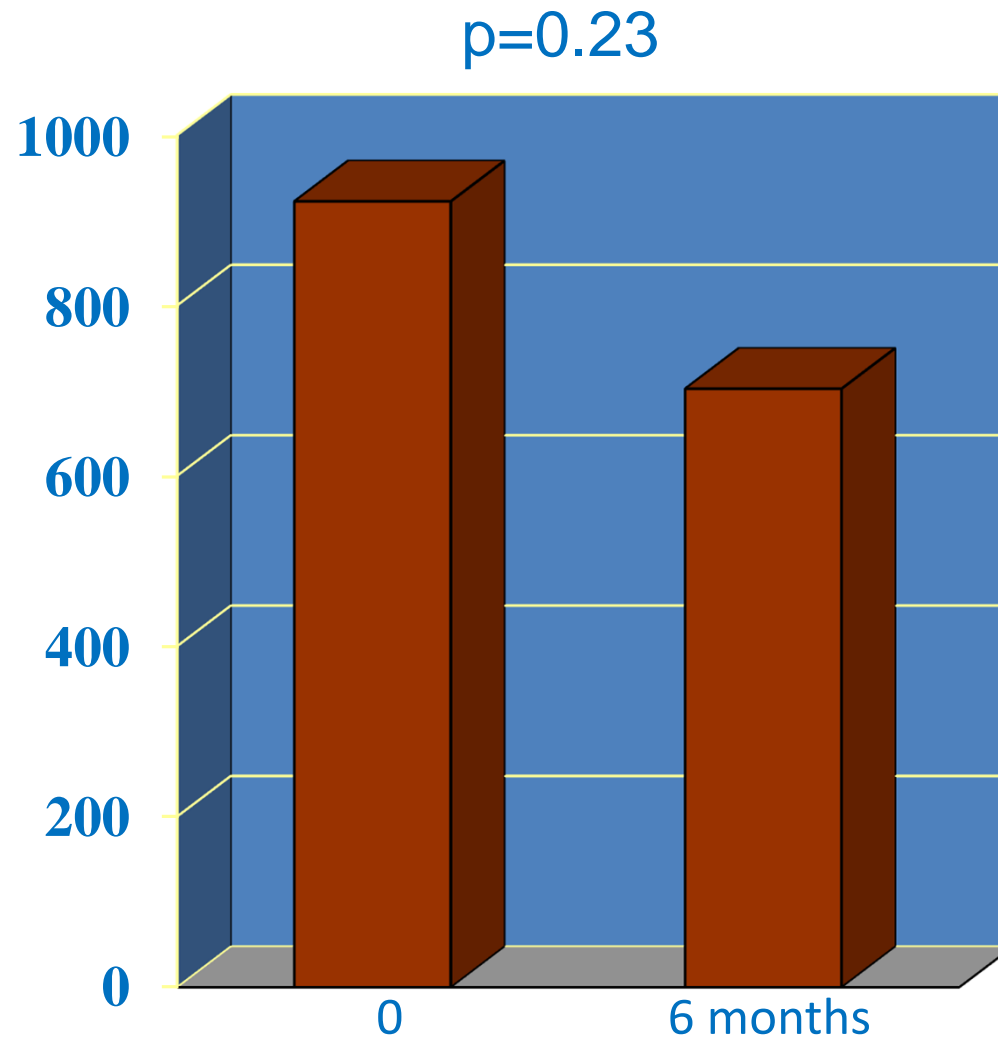
60 % decrease

$p=0.09$

# Effect of ZOL on Markers of Bone Formation



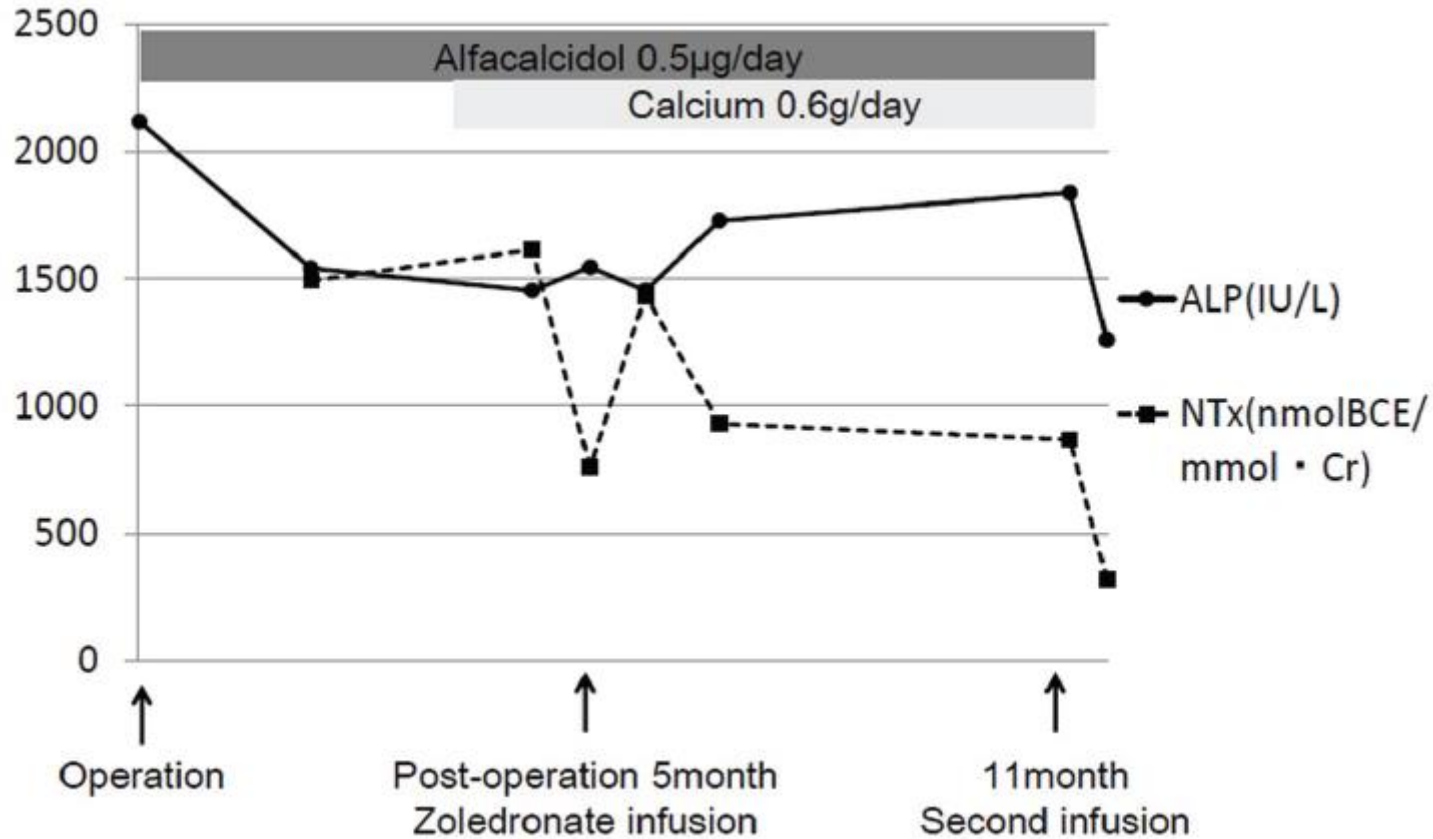
# Effect of ZOL on Markers of Bone Resorption



Serum CTX Chapurlat RD. J Bone Miner Res 2006

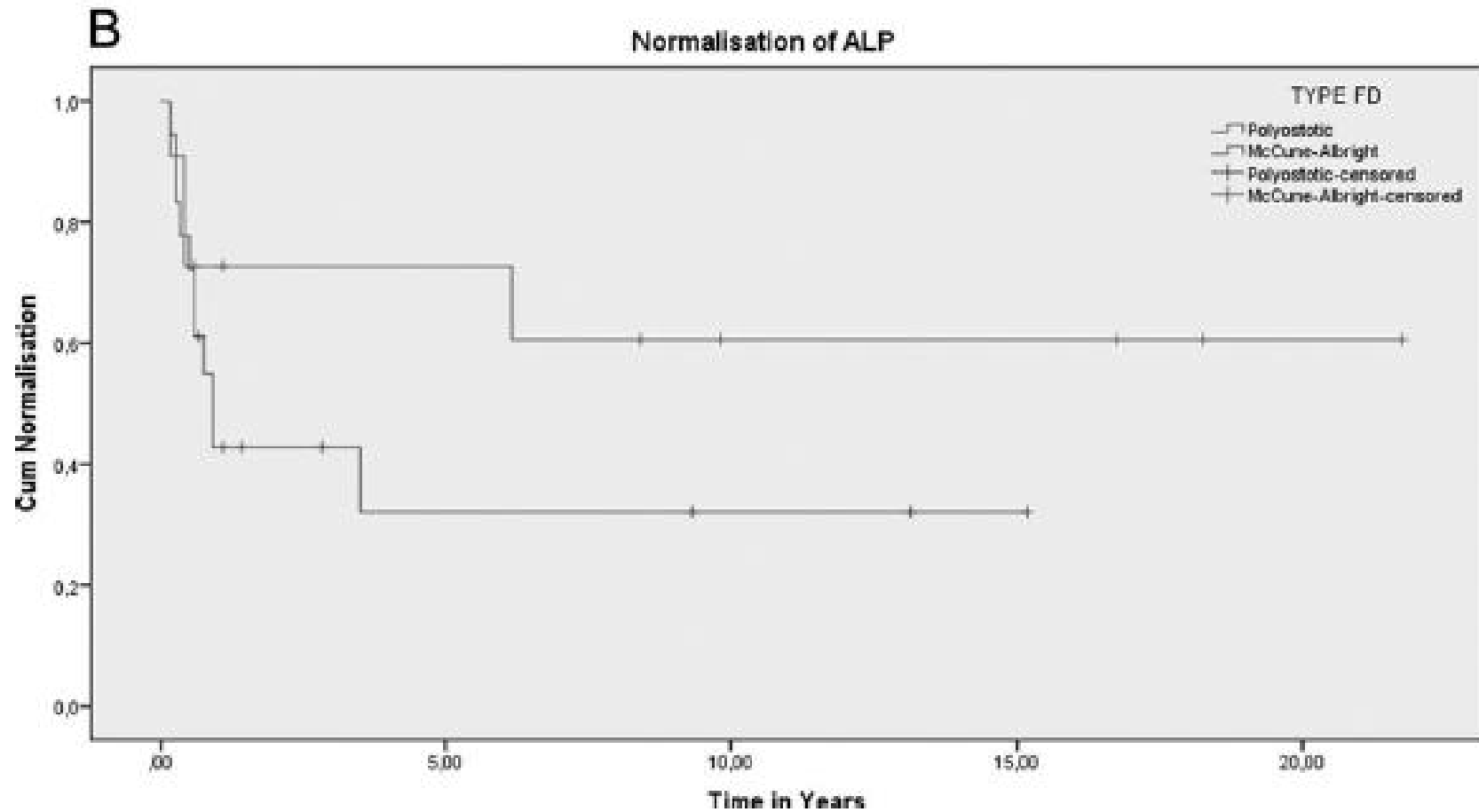
# Improved by ZOL

## 2 mg twice, after humeral fracture



# Olapadronate

11 patients with MAS, 30 patients with PFD



# Conclusion

No improvement in bone pain with oral BPs in randomized trials

Substantial improvement in bone pain in open studies with IV BPs

Reduction in bone markers with all BPs