BISPHOSPHONATE TREATMENT AND ATYPICAL FRACTURES

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Background:
Bisphosphonates are a safe and effective therapy for the treatment of osteoporotic disease, due to decreasing bone resorption mediated by osteoclasts. However, if the therapy lasts for 2-4 years, it may increase the formation and propagation of micro-cracks into the bone. As a result, patients may be susceptible to atypical fractures, mainly in the subtrochanteric region and femoral shaft.

Purpose:
To analyse the prevalence of atypical femur fractures in surgical patients treated with bisphosphonates.

Material and methods:
Descriptive observational study
We reviewed every inpatient of orthopaedic surgery from February 2013 until September 2014.

Results:
N= 585 patients
34 have a long-term treatment with bisphosphonate
27 female and 7 male
Median age 77 ± 9,5 years
Median duration of treatment was 17 ± 8.54 months
At the time of hospital discharge, 8 (23.5%) patients who had suffered some kind of fracture continued with bisphosphonate therapy, whereas 26 (76.5%) discontinued treatment at home.

Conclusion:
In our study, half of the patients who have been treated with long-term bisphosphonates suffered atypical femur fracture. Bisphosphonate therapy should be evaluated periodically by the primary care physician to prevent the occurrence of atypical fractures in patients with more than 12 months of the treatment.

Data Collected:
- Age
- Gender
- Medical history of the episode
- Domiciliary pharmacotherapy

Type of Fracture
- Femur: 47.0%
- Knee: 32.3%
- Shoulder: 5.9%
- Wrist: 5.9%
- Vertebrae: 8.8%