

We did not find significant correlation between TBS and BMD of spine and femoral neck:

- TBS=1.36-0.05*BMD of spine; $r=-0.05$; $t=0.66$; $p=0.5$.
- TBS=1.53-0.22*BMD of femoral neck; $r=-0.16$; $t=1.94$; $p=0.05$.

Conclusion(s): The significant correlation between TBS and lean mass indicates that bone quality can be associated with muscular system. TBS was significantly decreased with age. TBS is independent parameter which has potential diagnostic value without BMD.

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HOW WE ARE TREATING OSTEOPOROTIC HIP FRACTURES (OHF)? A NATIONWIDE OBSERVATIONAL STUDY IN PORTUGAL

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Objective(s): Analyze changes in treatment of osteoporotic hip fractures (OHF) in Portugal, between 2000-2008.

Material & Methods: Discharges with diagnosis of hip fracture between 2000-2008 were collected from the national register of hospital discharges, mandatory for all Portuguese public hospitals. Chi-square test was used to access independence between sex, age groups, treatment and fatality. Linear regression was used to access temporal trends.

Results: A total of 77,083 OHF were recorded. Crude incidence rates (100,000 inhabitants) were 343.2 in females and 125.2 in males. Surgery was part of the treatment in 90.4% of patients and 9.6% were treated conservatively. Risk for conservative treatment was higher in men (OR=1.43; CI95%: 1.43-1.47%) and lower in patients between 70-85 years (OR=0.72; CI95%: 0.67-0.87) compared to 50 years old patients. Patients treated conservative reduced 45.2% (CI95%: 53.1-37.3) from 2000-2008.

Internal fixation was the most common (89.0% of the cases) treatment for trochanteric fractures, for neck fractures, total or partial hip arthroplasties (THA or PHA) was used 69.7% of the cases. Treatment with THA increased 21.1% ($p=0.030$) in patients with neck fracture younger than 75. Patients treated with THA had a mean age of 73.9 years (CI95%: 73.1-73.6) and were significantly younger than the ones treated differently ($p=0.039$). The longer mean length of hospital stay (LOHS) was observed for conservative treatment and for THA; being 18.3 days (CI 95%: 17.4-18.7) and 16.1 days (CI95%: 15.9-16.5), respectively.

Patients treated conservatively had the highest mean score in the Charlson-index, therefore they had more comorbidities than patients treated surgically. In-hospital crude fatality rate for OHF was 5.5% and decreased 16.8% ($p<0.018$) from 2000-2008. Fatality rate was 8.7% in men and 4.6% in women, OR=1.89; CI95%: 1.86-1.92. Fatality rate was 23.1% in patients treated conservatively and 3.6% in patients treated surgically, OR=6.33; CI95%: 6.18-6.48.

Conclusion(s): A significant decrease in fatality and in patients treated conservatively was observed from 2000-2008. An unexpected high number of patients treated conservatively were observed. No reasons for this fact were found. A spatial analysis of conservatively treated patients may help point reasons for this high prevalence.

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APPLICATION OF FRACTURE RISK ASSESSMENT TOOL (FRAX) TO PREDICT NEED FOR DXA SCANNING AND TREATMENT IN PATIENTS WITH RHEUMATOID ARTHRITIS AT RISK OF OSTEOPOROSIS

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Objective(s): To assess the accuracy of FRAX scores in RA patients without actual femoral neck BMD in identifying at risk needing BMD measurement and to establish the necessity to treat patients with RA and osteopenia (T-score femoral neck >-2.5).

Material & Methods: We calculated pre-BMD FRAX scores in 72 postmenopausal women with RA estimated to be at risk for having an osteoporosis and a high fracture risk. A DXA scan was performed to every patient and a FRAX score including the BMD was calculated.

Results: Calculation of pre-BMD FRAX scores reveals that 47 (65.28%) of the patients had a high 10-year fracture risk and in the rest 25 (34.7%) the risk was defined as low ($p<0.05$). After performing a DXA scans only 19 (26.4%) of all patients were evaluated as having an osteoporosis (T-score femoral neck <-2.5). From the rest 53 after a calculation of FRAX score including the BMD a number of 28 (52.8%) patients with high 10-year fracture risk and need for treatment is found. The clinical FRAX score together with the FRAX score including the BMD demonstrate that from all patients with RA those with high 10-year fracture risk are 47 (65.28%).

Conclusion(s): In patients with RA perceived to be at risk of osteoporosis or osteopenia, the clinical FRAX score alone can predict accurately the risk of osteoporotic fracture. The usage of FRAX score alone have a high predictive value as far as it concern the necessity of osteoporosis treatment.