



**VI CONGRESSO NAZIONALE DELLA SOCIETÀ ITALIANA
DI OSTEONCOLOGIA (ISO)**

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PALAZZO ZACCO**

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**European
Reference
Network**

for rare or low prevalence
complex diseases



Network
Adult Cancers
(ERN EURACAN)



Bone health management in early breast cancer patients: An Italian Osteoncology center experience

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Background

- Bone health is an increasing problem in breast cancer survivors
- Adjuvant treatments for early breast cancer may induce bone loss: aromatase inhibitors, ovarian suppression, ovarian suppression + AI, extended treatment
- CTIBL has clinical, social, economic consequences and may result in an increased risk of treatment-related fractures leading to decreased quality of life and shorter survival

Francis, PA NEJM 2015
EBCTCG Lancet 2015
Pagani O, NEJM 2014

Aromatase Inhibitors and Bone Health in postmenopausal BC patients

Randomized studies (IES, BIG 1-98, ATAC, TEAM)

↓ BMD

↑ bone turnover markers

↑ fracture risk

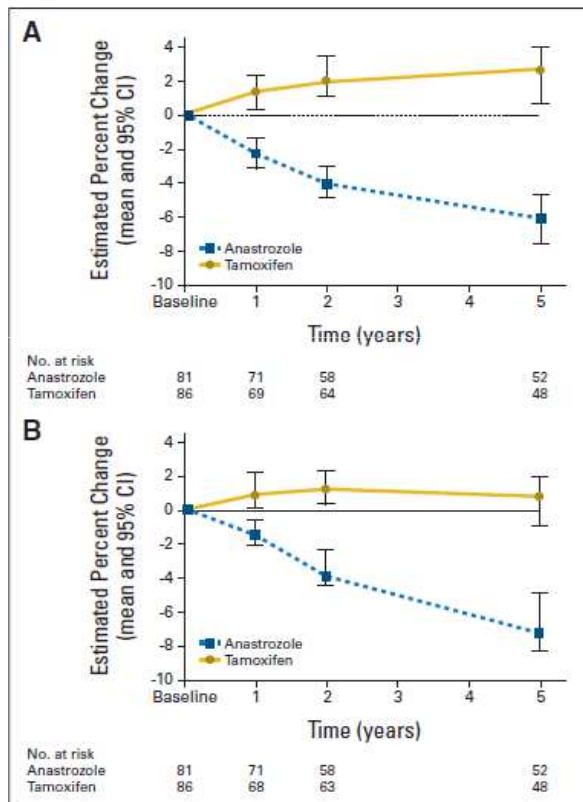


Fig 2. Mean percentage changes in bone mineral density after 1, 2, and 5 years, for patients with data at each time point. Bars represent 95% CI. (A) Lumbar spine change over time; (B) total hip change over time.

Eastell et al,
JCO 2008 (ATAC)

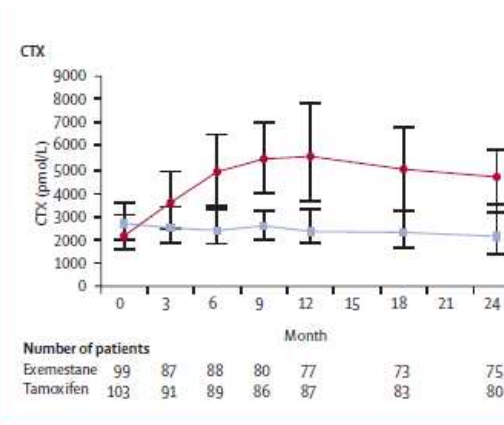
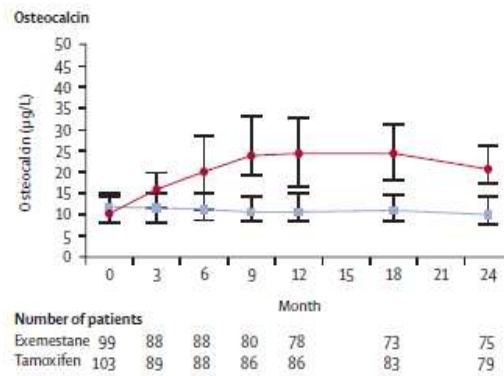
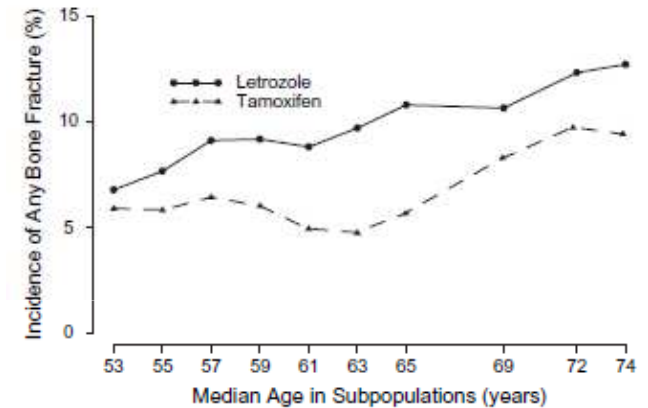


Figure 4: Median (IQR) changes in bone resorption and formation markers

Coleman et al,
Lancet Oncol 2007 (IES)



Rabaglio et al,
Ann Oncol 2009 (BIG 1-98)

Patients and Methods

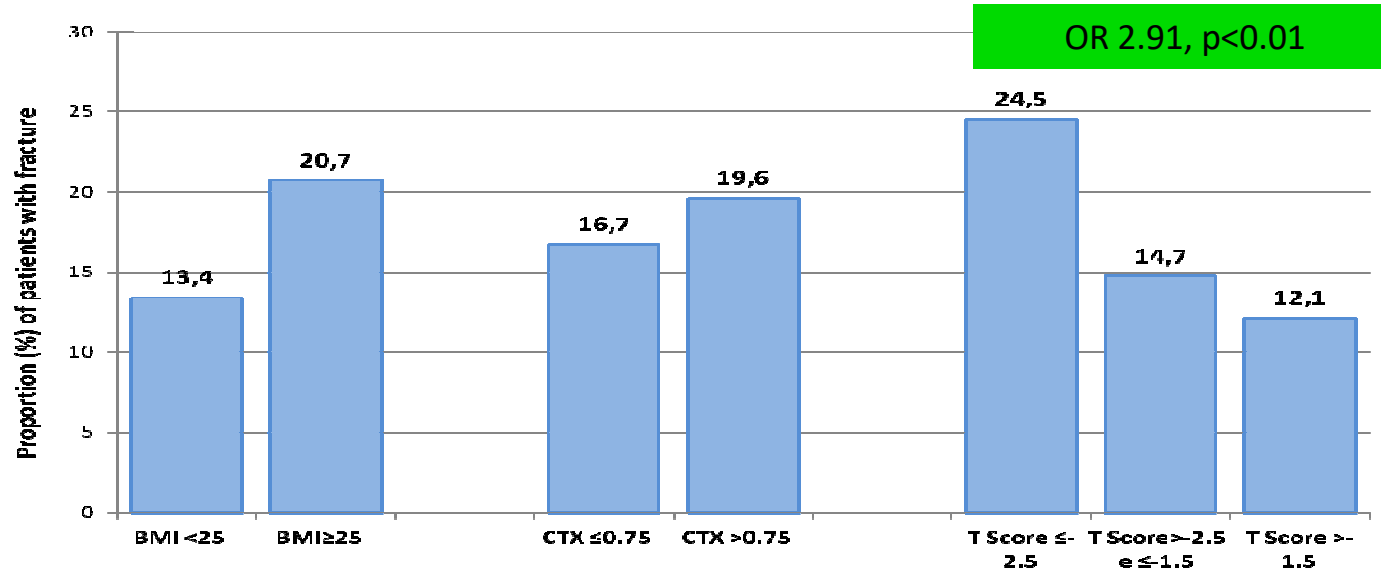
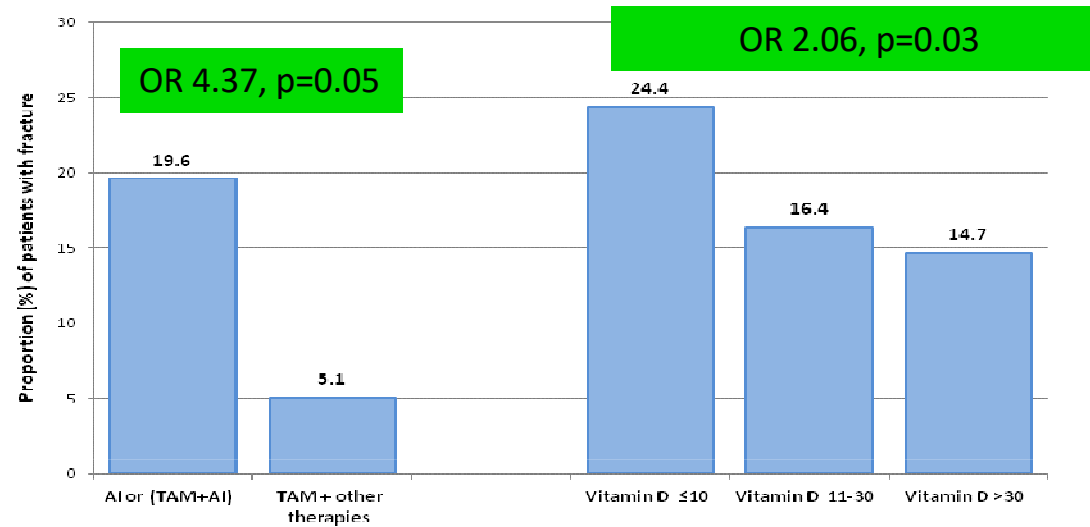
Baseline patients characteristics at first evaluation	Pre-menop N=124 (%)	Post-menop. N= 578 (%)
Median age, years (range)	46 (32-59)	64 (31-86)
<i>Bone target therapy baseline</i>		
Yes	19 (15.7)	177 (30.8)
No	102 (84.3)	398 (69.2)
<i>Body Mass Index (BMI)</i>		
BMI <25	90 (73.2)	246 (42.9)
BMI ≥25	33 (26.8)	328 (57.1)
<i>CTX</i>		
CTX ≤0.75	93 (84.5)	399 (81.3)
CTX >0.75	17 (15.5)	92 (18.7)
<i>T score (Dexa or QUS)</i>		
≤-2.5	28 (22.6)	212 (37.0)
>-2.5 e ≤-1.5	46 (37.1)	204 (35.6)
>-1.5	50 (40.3)	157 (27.4)
<i>Endocrine Treatment</i>		
AI + (AI+TAM)	-	500 (86.5)
Tam + other	-	78 (13.5)
LHRH+ AI and LHRH alone	23 (18.5)	-

1.165 patients with early pre and post menopausal breast cancer

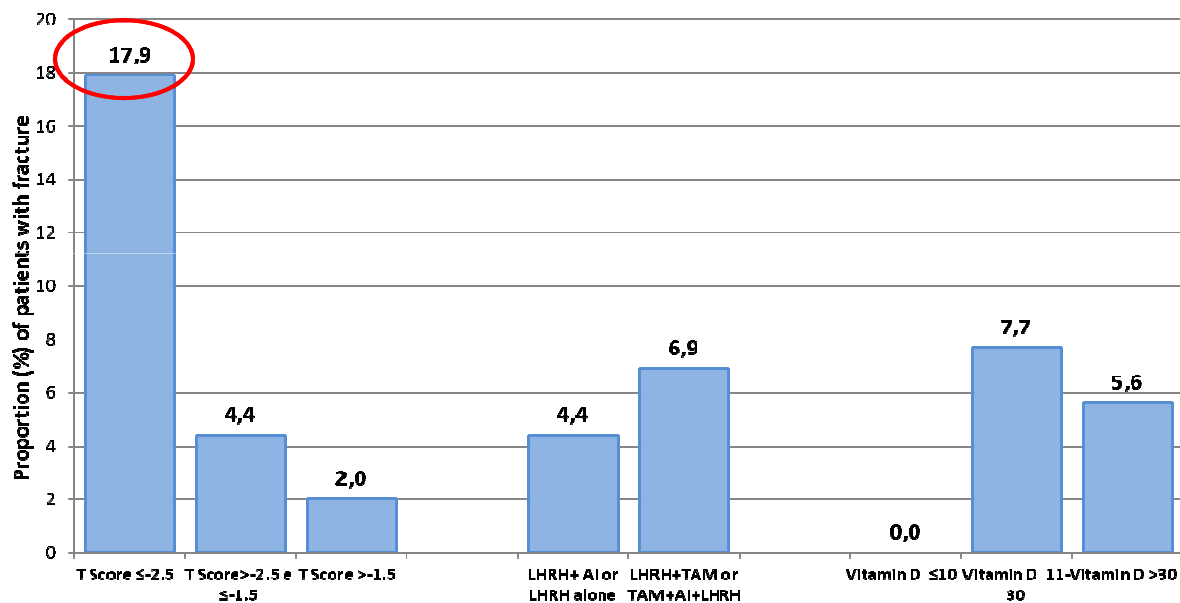
For 702 (60.2%) patients treated with endocrine therapy a X-Ray of the spine was available and they were included in the analysis

AIM of the study: to assess the prevalence of bone fractures in this population

POST-MENOPAUSAL, overall fracture rate= 17.6% (102/578)



PRE-MENOPAUSAL, overall fracture rate=6.4% (8/124)



- All patients treated with LHRH
- Few events

Comments

- Very large retrospective analysis of collected data in breast cancer population about bone health status
- Bone health evaluation in adjuvant setting of breast cancer is a multifactorial process involving several risk factors
- Heterogeneity of the population in terms of clinical and pathological characteristics of the tumor and endocrine treatments
- Heterogeneity in calcium+vitD supplementation