ANTI-OSTEOPOROTIC DRUGS USE IN PATIENTS WITH RA UNDER BIOLOGICAL AGENTS

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Background

- Rheumatoid arthritis (RA) is a chronic systemic rheumatic disease associated with an increased risk of bone loss:
  - Localized: juxta-articular osteopenia, bone erosions
  - Generalized: osteopenia, osteoporosis (OP)
- RA is included in the FRAX algorithm as a risk factor for OP
- Chronic inflammation and systemic corticosteroids play an important role in bone loss

Objectives

1. To evaluate the use of anti-osteoporotic pharmacological treatments in patients with RA under biologics.

2. To identify factors associated with the use of anti-osteoporotic pharmacological treatments.

Methods:

- Patients with RA under biological therapy followed at Hospital Garcia de Orta since 2000 and included in the National Register – Reuma.pt
- Demographic and clinical data, disease activity, concomitant medication including synthetic and biologic DMARDs, corticosteroid dosage, previous diagnosis of OP
- Frequency of anti-osteoporotic medication (antiresorptive drugs and / or calcium and / or vitamin D) at last visit
- Comparison between patients with and without anti-osteoporotic medication
- Factors associated with current use of anti-osteoporotic medication were identified by logistic regression (uni- and multivariable).

Results (1): Patients receiving anti-osteoporotic treatment

123 RA pts; 87% female; mean age 56.9 ± 13.2 y; mean disease duration 11.6 ± 7.9 y

	Number of patients (%)
Antiresorptive drugs and / or supplemental calcium and / or vitamin D	**63/123 (51.2%)**
Antiresorptive drugs : Bisphosphonates Strontium ranelate Raloxifene	**36/63 (57.1%)** 33 (91.7%) 2 (5.6%) 1 (2.6%)
Calcium and vitamin D: Calcium and vitamin D (alone) Calcium and vitamin D + Antiresorptive drugs	**60/63 (95.0%)** 27(45.0%) 33 (55.0%)

Results(2): Comparation between groups with and without anti-osteoporotic treatment

Variables	With treatment (n=63) Mean ± SD or %	Without treatment (n=60) Mean ± SD or %	P-value*
Age (years)	**62.9± 11.7**	**52.8±13.6**	**0.00***
Female gender (%)	81.7	92.6	0.09
BMI (kg/m^2)	28.0 ± 5.6	27.1 ± 4.9	0.36
Disease duration (years)	**13.3 ± 9.5**	**9.8 ± 5.5**	**0.00***
DAS28 (4v)	3.7 ± 1.5	3.1 ± 1.0	0.08
HAQ (0-3)	1.5 ± 0.5	1.1 ± 0.4	0.55
Exposure to biologics (years)	6.0 ± 13.5	4.4 ± 2.7	0.34
Duration of last biologic (days)	1000.6 ± 801.7	970.8± 805.3	0.84
Total number of biologics	1.8 ± 1.1	1.6 ± 0.7	0.50
Number of concomitant DMARDs	1.2 ± 0.6	1.1 ± 0.6	0.67
Current use of corticosteroids (%)	**68.3**	**36.7**	**0.00***
Duration of corticosteroid use (days)	1083.0±1059.5	794.8±618.3	0.18
Daily corticosteroid dosage (mg)	1.8±1.1	1.6±0.7	0.50
Alcohol intake: Current (low/moderate) % Past habit % Without/unknown habit %	 6.7 0.8 44.5	 3.3 0.8 42.7	0.38
Smoking: Current Past Never	 5.7 4.9 40.9	 5.7 5.6 36.1	0.76
Previous Diagnosis of OP (%)	**22.2**	**3.3**	**0.00***

* Statistically significant ($p < 0.05$)

Results(3):Factors associated with the use of anti-osteoporotic treatment

Variables	Univariable analysis OR (CI 95%)	Multivariable analysis adjusted for gender OR (CI 95%)
Current age (years)	**1.1 (1.0;1.1)**	**1.0 (1.0;1.1)**
OP diagnosis (yes vs no)	**8.3 (1.8; 38.2)**	**5.8 (1.1; 30.8)**
Current steroid therapy (yes vs no)	**3.7 (1.8;7.8)**	**4.4 (1.9;10.2)**
Disease Duration (years)	**1.1(0.3;1.1)**	**-**
Gender (female vs male)	2.6 (1.5;8.0)	3.5 (2.4;13.1)

Conclusions

- More than half of patients with RA under biological treatment receive some anti-osteoporotic medication

- 57 % of them were treated with antiresorptive drugs
- 43% were only supplemented with calcium and vitamin D

- Older age, systemic corticosteroid use and previous diagnosis of OP are the determinants for the prescription of antiresorptive drugs and/or calcium and/or vitamin D