APPROPRIATE USE OF BISPHOSPHONATES IN OSTEOPOROSIS IN COSENZA HEALTH DISTRICT (ITALY)

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OBJECTIVES

The osteoporosis is a disease characterized by underdiagnosis and undertreatment. We want to analyze the persistence and the adherence to the treatment in our referring population. The aim of our study is the valuation and the monitoring of Bisphosphonates use considering the appropriateness either with a regard to indication/limitation or to the persistence to the treatment.

METHODS

We analyzed the patients in health district of Cosenza (Italy) in the period from January 2009 to June 2011. The whole population is 291,086 (51.3% women and 48.7% men); particularly the women above 50 years old are 89,994 (60.3%). The patients treated with an active drug for osteoporosis (sold in pharmacy Teriparatide, Parathyroid Hormone, Raloxifen, Alendronic Acid -alone or in association with Cholecalciferol-, Ibandronic Acid, Risedronic Acid, Strontium Ranelate) were 96,94, of which 92.34% women.

RESULTS

The patients treated with Bisphosphonates that were persistent in a three-years considered period were 3838. In the year 2009 the total patients took an active drug for osteoporosis were 8378, of which 93,37% women (7814). The treated patients in 2010 were 7680 (92.89% women, 7134) and in the first half of the year 2011 the total patients were 6846 (93.28% women) (Fig. 1). For each molecule we analyzed the prescriptions of persistent patients from January 2009 to June 2011, in which we observed the biggest adherence to the therapy in patients treated with Risedronic Acid and Alendronic Acid, either alone or in association (Fig. 2).

The patients treated by Teriparatide (84) had 6.68 as average prescription for each patient; the patients took the drug in six months were 46 (60,7%); in a period of 6-12 months were 9 (10,7%) and in 18 months or more were 24 (28,6%). The patients treated by Parathyroid hormone (only 2) had 7 as average prescription for each patient. The prescription of Teriparathyde and Parathyroid hormone is under a restrictive criteria. The patients treated by Raloxifene (317) had 7.91 as average prescription for each patient; the patients took the drug less 25% (in six months of treatment) were 178 (56.2%); between 25% and 50% (6-12 months) were 38 (11.9%), between 50% and 75% (12-18 months) were 60 (18.9%), more 75% were 41 (13%). The patients treated by Alendronic Acid, alone or in association with Cholecalciferol (4610 totally), had 7.92 as average prescription for each patient; the patients took the drug less 25% were 2458 (53.3%); between 25% and 50% were 614 (13.3%), between 50% and 75% were 956 (20.7%), more 75% were 582 (12.7%). The patients treated by Ibandronic Acid (1082) had 8.78 as average prescription for each patient; the patients took the drug for less than six months were 539 (49.8%); in a period of 6-12 months were 143 (15,4%), for 12-18 months were 228 (21,2%), more 75% were 170 (15,6%). The patients treated by Risedronic Acid (2649) had 8.36 as average prescription for each patient; the patients took the drug less 25% were 1384 (52.2%); between 25% and 50% were 332 (12.6%), between 50% and 75% were 580 (21.9%), more 75% were 353 (13.3%). The patients treated by Strontium Ranelate (2350) had 4.77 as average prescription for each patient; the patients took the drug less 25% were 1782 (75,8%); between 25% and 50% were 235 (9,6%), between 50% and 75% were 274 (11,7%), more 75% were 69 (2,9%) (Fig. 3). The level of patients took the drug more than 75% is about 13-15% for all the molecules, except the level of Strontium Ranelate, that was 2.9%.

CONCLUSIONS

Our observation confirms the underdiagnosis and undertreatment of the osteoporosis; this problem regards particularly Strontium Ranelate and Raloxifen, whereas it is better with Risedronic Acid (twice a month) and with Alendronic Acid (once a month). Our results show some prescriptions made to men in all the considered period, signal of inappropriateness. The appropriateness is the first step to the adherence, the real target in the chronic therapy for osteoporosis.