

Osteoporosis and male age-related hypogonadism.

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Male age-related bone loss is caused, as main factor, by idiopathic hypergonadotropic hypogonadism that occurs with advancing age. The study of the effects of sex steroids on bone physiology in men has recently highlighted bone pathophysiology. All men with hypogonadism should have their bone mineral density (BMD) measured, because it is known that it is low in these men. However, the rate and sites of bone loss following testosterone deficiency are not known.

OBJETIVES: Review the BMD in hypogonadal men that consulted for sexual dysfunction.

METHODS: BMD measurements were performed in the lumbar spine (LS) and femoral neck (FN) using Osteodensitometry Equipment DXA Fan-Beam, GE Lunar Prodigy Advance, Software 9.0 version, results compared with same age not hypogonadal men with T-score and Standard Deviations (SD). Hypogonadism was defined by calculating Free Serum Testosterone (FT).

RESULTS: 33 patients were included. The mean age was 54. All of them had hypogonadism as the only risk factor for osteoporosis. There was a relation between reduction of FT with reduction of BMD. 13/33 had T-Score > -1.0 SD (normal BMD) with low hypogonadism and 4/33 had T-Score < -2.5 SD (osteoporosis). The observed reduction in BMD in the LS and FN did reach statistical significance ($p < 0.005$).

CONCLUSION: These findings demonstrate a significant loss of bone in men with hypogonadism and suggest that the femoral neck and lumbar spine are the preferred sites for monitoring bone loss in older men. In addition, markers of bone resorption may be helpful. Further studies are needed to demonstrate whether testosterone administration affects BMD in these subjects.