[Osteopenia in beta-thalassemia major]

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Regular blood transfusions in patients with beta-thalassaemia major lead to secondary hemochromatosis in the majority of cases. As a consequence of chronic iron overload, many endocrinopathies may occur. The most frequent endocrine dysfunction is hypogonadotrophic hypogonadism, which is mainly responsible for osteopenia in as much as 80% of thalassemic patients. The frequencies of other endocrine disorders (hypothyroidism, diabetes mellitus and hypoparathyroidism) are lower. We investigated 5 female patients aged 22-25 years for endocrine dysfunction and bone density. All presented with hypogonadotrophic hypogonadism and amenorrhea (four primary and one secondary). 4 patients showed absent or delayed pubertal development and short stature (below 10th percentile). In all five, hypogonadism is the most relevant cause of osteopenia as demonstrated by osteodensitometry. Endocrine disorders, especially absent pubertal development, should be detected in good time and treated with hormonal replacement. Established osteopenia is treated hormonally and with vitamin D3 and calcium.

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