

## BONE MASS AND VERTEBRAL FRACTURES IN COELIAC DISEASE

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Assessment of bone mineral density (BMD) and of prevalent vertebral fractures in fertile women with Coeliac Disease (CD).

In 33 fertile women (mean age 35.8 yrs), with a recent diagnosis of CD, were performed, at baseline and after a gluten-free diet (mean 16.6 months), BMD measurement at the lumbar spine and at the left hip; morphometric X-ray absorptiometry (MXA) was done using a Hologic QDR 4500A.

Basal mean value of lumbar spine BMD was 988 g/cm<sup>2</sup>, normal in 25/33 women, osteopenic in 6/33 and osteoporotic in 2/33; at hip mean basal BMD was 768 g/cm<sup>2</sup>, normal in 16/33, osteopenic in 16/33 and osteoporotic in 1/33. At baseline 2/33 women had a single vertebral fracture at spine radiographs. After a gluten-free diet mean value of BMD was 1002 g/cm<sup>2</sup> (+1.76% n.s.) at lumbar spine and 770 g/cm<sup>2</sup> (+0.55% n.s.) at left hip; 3 of 25 women with normal lumbar BMD at baseline became osteopenic; 2 of the 6 osteopenic became normal; the BMD of 2 women osteoporotic was unvaried. At follow up among the 16 osteopenic women at hip baseline BMD, 2 became normal and 1 osteoporotic. New vertebral fractures were not found using MXA.

Our results showed that the gluten-free diet in coeliac patients is not sufficient to correct bone loss, suggesting the utility of a supplement of calcium and vitamin D, and, in the evidence of vertebral fractures, pharmacological treatment for osteoporosis.