

## Pancreatic Elastase 1 In Patients With Osteoporosis

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**Introduction:** Vitamin D deficiency is common in the elderly. The levels of 25-hydroxyvitamin D (25(OH)D] decline with age, due to lesser exposure to sunshine and decreased production in the aging skin. Regular nutrition does not compensate for this. However, intestinal disorders and exocrine pancreatic insufficiency may play a role in the vitamin D supplementation.

**Material and methods:** In the present study, we present data on the influence of the remaining exocrine pancreatic activity using the pancreatic elastase 1 stool content as an potent marker (ScheBo<sup>®</sup>•Biotech AG, Giessen, Germany) on the vitamin D status in a group of 167 elderly postmeno-pausal women with radiological estimated fractures of the hip, distal radius or/and vertebral bodies.

**Results:** In 57 subjects, the stool elastase content was below 200 µg/g (below normal range). The median levels of serum 25 (OH)D were significant lower for subjects with decreased stool elastase content ( $p < 0,01$ ) compared to those with a pancreatic exocrine marker within the normal range. There is a statistically significant correlation between the pancreatic elastase 1 stool content and the vitamin 25-hydroxyvitamin D{25(OH)D] serum level.

**Discussion:** We concluded that pancreatic elastase 1 stool content below 200 µg/g are associated with decreased vitamin D supply. The reduced exocrine pancreatic function may be an important risk factor for the fractures of hip, vertebral bodies. Since the pancreatic enzymes play a major role in digestion and absorption of nutrients and chronic pancreatitis is a long disease, the findings of malnutrition is not surprising. Simple estimation of body composition, such as BMI, are poor indications of the nutritional state, and even though BMI was in the normal range, we found a significant loss or lean body mass and fat mass, especially in patients with steatorrhea.

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