Osteopenia

Osteopenie is determined by bone mass density (BMD). According to the WHO, osteopenia is defined as BMD between −1.0 and −2.5 standard deviations for healthy young adults. It is often associated with metabolic diseases such as hyperparathyroidism, and is also related to vitamin D deficiency.

This is a pre-stage of osteoporosis.

Diagnostics

It is done by measuring BMD. Complementary methods are Body mass index, and blood tests including calcium, phosphorus, albumin, alkaline phosphatase, liver function,, creatine and TSH tests.

Prevention

If osteopenia is diagnosed and treated early, the risk of fractures is reduced and the quality of life is increased. Dietary measures (enough calcium and protein) and exposure to the sun are important, as well as vitamin D supplementation in case of osteopenia.

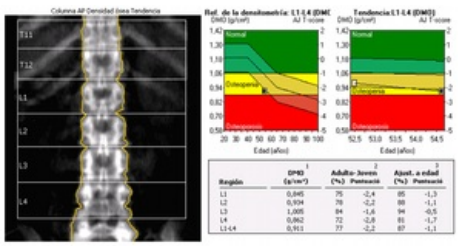
Part of prevention is physical activity that puts stress on the bones in their longitudinal axis, so walking, running, dancing, tennis, etc. appear to be beneficial. It is also important to obtain the maximum possible bone density in childhood and adolescence (13-17 years), from the age of 30 bone density decreases.

Treatment

The treatment includes the administration of calcium, bisphosphonates,, estrogen (in post-menopausal women), PTH and calcitonin, and exercise is a natural part of it.

References

- KARAGUZEL, Gulay and Michael F HOLICK. *Diagnosis and treatment of osteopenia. Rev Endocr Metab Disord [online].* 3. edition. Prague : Grada Publishing, a.s., 2010. 237-251 pp. vol. 1. ISBN 11154-010-9154-0.



DXA Lumbar vertebral column Osteopenia es