

Press release

osteolabs GmbH provides further validation for use of OsteoTest in osteoporosis and early-stage kidney malfunction

Innovative potential recognized by nomination as finalist for the prestigious EARTO Innovation Prize

2nd July 2020 / Kiel. osteolabs GmbH today announced further validation and clinical evidence for the use of OsteoTest for the early detection of bone loss. OsteoTest represents a new type of predictive test for osteoporosis that provides early insights into the bone mineral balance of the human body using a simple urine or blood sample. So far, such a diagnosis currently requires the use of X-ray technology (DXA), which is invasive, less sensitive and represents a potential radiation risk for the patient. In this context, osteolabs was now able to show in a recent study of 100 women together with the University Medical Center Kiel that the OsteoTest can predict fractures caused by bone atrophy better and most important non-invasive than the DXA method currently used (Study from CRC GmbH Kiel, GEO-Osteo-2016, NCT02967978, publication in preparation).

STUDY

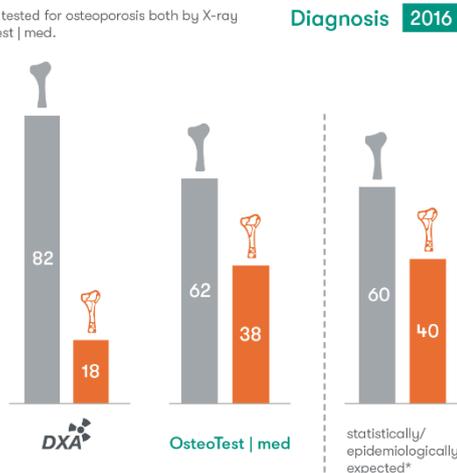
Comparison DXA vs. OsteoTest | med

100 women over 70 years of age were tested for osteoporosis both by X-ray procedure (DXA) as well as by OsteoTest | med.

- Legend:**
- not pathological/ not osteoporotic
 - pathological/ osteoporotic

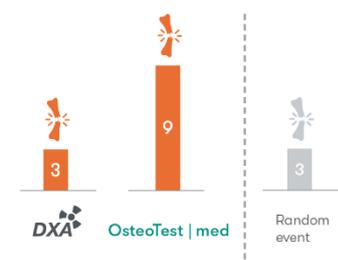
* For women over 70, in Cranney, A., et al. (2007). „Low bone mineral density and fracture burden in postmenopausal women.“ Canadian Medical Association Journal 177(6): 575-580.

Source: Study „Frakturaspekt_GEO-Osteo-2016“, n=100 postmenopausale Frauen, NCT02967978, Clinical Research Center Kiel GmbH



Fractures after 2 years: 2018

98 of the 100 test persons (2 had died) were questioned about fractures in the last two years. A total of 12 fractures occurred, 9 of which were due to osteoporosis. The OsteoTest | med had previously diagnosed all 9 affected test persons as osteoporosis risk patients.



In addition, clinical physicians from the Catholic University of Leuven in Belgium successfully applied the OsteoTest in a recent study to verify the side effects of an androgen deprivation therapy as part of a prostate therapy for men (Rougin Khalil et al., European Journal of Endocrinology (2020) 183, 181-189). The latter also confirms the usefulness of checking OsteoTest for predicting bone calcium-related loss even for men.

Bone loss is also a serious side effect of kidney dysfunction, although difficult to predict with current diagnostics. A recent clinical trial in collaboration with the Great Ormond Street Hospital for Children of University College London and the GEOMAR Helmholtz Center in Kiel has shown that OsteoTest also qualifies as a biomarker for early renal dysfunction.

The researchers show a highly significant dependence of the OsteoTest results on the status of the renal dysfunction (publication in preparation).

"We are very satisfied with the recent clinical results for OsteoTest for early detection of bone loss in women but also in men", said Prof. Dr. Eisenhauer, Scientific Lead for osteolabs and GEOMAR scientist." Initial results are also very exciting for our test to serve as a diagnostic tool for the tubular functionality of the kidney, with further studies required for full clinical validation."

Due to the uniqueness, innovative strength and social performance of OsteoTest, osteolabs was nominated as a finalist for the EARTO Award. On October 28th of this year the award will be presented in a ceremony in Brussels, Belgium. The EARTO Award rewards innovations with significant social and / or economic effects. EARTO is the European association of research and technology organizations headquartered in Brussels, consisting of 350 research and technology organizations representing 150,000 highly qualified researchers and engineers.

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