## MEDIX SERIES

## 3D-DXA: EMPOWERING EXPERTS WITH ACCURATE DIAGNOSIS AND SEAMLESS TREATMENT FOLLOW-UP



Optimise patient care with individualised, targetted treatment plans and evidence-based decision making using 3D-DXA technology:

- Unique technology that analyzes the bone in 3D from a standard femur DXA scan without additional radiation
- New dedicated clinical parameters and reference curves to measure and separately monitor cortical bone and trabecular bone:
$\rightarrow$ Cortical surface BMD $\quad \rightarrow$ Trabecular volumetric BMD $\quad \rightarrow$ Integral volumetric BMD
- More than 200 studies worldwide highlighting the clinical benefits of using 3D bone parameters in daily clinical use.
- Identify local fragilities, prescribe targetted treatments and effectively monitor change in bone health over time


## CLINICAL CASE

## AN EARLY POST-MENOPAUSAL WOMAN WAS REFERRED TO THE CLINIC FOR A ROUTINE BONE ASSESSMENT.

## PATIENT PROFILE

History:

- Age: 51
- BMI: $20 \mathrm{~kg} / \mathrm{m}^{2}$
- Menopause age: 49
- No history of disease or pathology

Clinical Assessment:

- Colles fracture 10 years ago
- Smoking: 15/day
- Alcohol : normal consumption
- Dietary calcium intake: $600 \mathrm{mg} /$ day

Initial evaluation was performed using DXA exam. No treatment was prescribed following the results.

- Total Hip T-Score: -2.3
- Osteopenia
- FRAX results:

Probability of osteoporotic fracture: 6.7 \% Probability of hip fracture: 3.6 \%

## A HIP FRACTURE HAPPENED 5 YEARS LATER

A retrospective analysis was performed, processing the previous DXA exams using 3D-DXA technology. 3D analysis showed low Trabecular density.

- Cortical sBMD:

T-Score: -1.7
Z-Score: -1.2

- Trabecular vBMD:

T-Score: -2.9
Z-Score: -2

## CASE STUDIES

3D-DXA has been proven to effectively differentiate the effects of various treatments and provide a clear rationale for clinicians when initiating, monitoring and modifying treatment plans.
Case studies* conducted worldwide highlighted that Trabecular vBMD of the femur is the best predictor of fracture.
*Cortical and trabecular bone of patients with prevalent major osteoporotic fracture : a case-control study using DXA-based 3D modelling - R. Winzenrieth, L. Humbert, E. Leib - 2018

## CONCLUSION:

If 3D-DXA had been included in the initial bone assessment, it would have been possible to:

- Indicate an increased risk of fracture linked to low trabecular bone density
- Support a medical decision to initiate a pharmacological treatment, before it's too late
- Provide clear indication to continue, modify or cese treatment

3D-DXA can help to predict fracture and better manage "high-risk" patients, in particular:

- Osteopenic patients
- Secondary osteoporosis (Hyper parathyriodism, CKD, Glococorticoids, Cancer, ...)

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[^0]:    Source : Courtesy of Dr Luis Del Rio \& Dra Silvana Di Gregorio²
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