SENTARA

Sentara Healthcare Sentara AIC Independence



Imaging Result

Name:

Drozda, Donna Sex: Female DOB:

Ordering Provider:

CC Provider:

Diagnosis:

Age-related osteoporosis without current pathological fracture [M81.0 (ICD-10-CM)] Other specified disorders of bone density and structure, unspecified site [M85.80 (ICD-10-CM)]

None Specified

Procedures Performed: BONE DENSITY STUDY -

CENTRAL

Exam Date/Time: 05/26/2021 2:02

PM

DXA BONE DENSITOMETRY, CENTRAL

CLINICAL INDICATION/HISTORY: Postmenopausal. Osteoporosis. Calcium supplement.

COMPARISON: 2019

TECHNIQUE: Using GE LUNAR Prodigy densitometer, bone density measurement was performed in the lumbar spine, the proximal left and right femora and the forearm. T-score refers to standard deviations above or below average compared to a young adult of the same sex. Z-score refers to standard deviations above or below average compared to a patient of the same sex, age, race and weight.

FINDINGS:

Lumbar spine: Invalid

On PA image of the lumbar spine obtained for localization of vertebral levels (not a diagnostic quality radiograph), there is apparent increased density at multiple levels. The density is not well characterized on the basis of this image, but possibly degenerative. These changes render the lumbar spine [invalid.

Left distal 1/3 radius BMD: 0.575 g/cm2

T-score: -3.4 Z-score: -1.4 Drozda, Donna

BMD increased 1.8%, which is not statistically significant within a 95 percent confidence interval compared to preceding study.]

Left total proximal femur BMD: 0.707 g/cm2

T-score: -2.4 Z-score: -0.7

BMD increased 9.6%, which is statistically significant within a 95 percent confidence interval compared to preceding study.

Right total proximal femur BMD: 0.709 g/cm2

T-score: -2.4 Z-score: -0.7

BMD increased 8.1%, which is statistically significant within a 95 percent confidence interval compared to preceding study.

Left femoral neck BMD: 0.688 g/cm2

T-score: -2.5 Z-score: -0.6

Right femoral neck BMD: 0.677 g/cm2

T-score: -2.6 Z-score: -0.7

IMPRESSION

- 1. BMD MEASURES CONSISTENT WITH OSTEOPOROSIS.
- 2. COMPARED TO THE PRECEDING STUDY, BMD HAS INCREASED.
- 3. INVALID LUMBAR SPINE.

Based upon current ISCD guidelines, the patient's overall diagnostic category, selected using WHO criteria in postmenopausal women and males aged 50 and above, is selected based upon the lowest T-score from among the lumbar spine, total femur, femoral neck, (or distal third radius if measured).

In men under age 50, premenopausal women who are not otherwise hormone deficient, and children, current ISCD guidelines suggest that a Z-score higher than -2.0 be considered within range of normal limits for age.

WHO Definition of Osteoporosis and Osteopenia on DXA (specified for post-menopausal Caucasian females):

Normal:

T-Score at or above -1 SD

Osteopenia: Osteoporosis: T-Score between -1 and -2.5 SD

T-Score at or below -2.5 SD

The risk of fracture approximately doubles for each 1 SD decrease in T-score. It is important to consider other factors in assessing a patient's risk of fracture, including age, risk of falling/injury,

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history of fragility fracture, family history of osteoporosis, smoking, low weight.

Various fracture risk tools have been developed for adult patients and are available online. For example, the FRAX tool developed by WHO is widely used. Reference www.iscd.org

It is also important to note that DXA measures bone density but does not distinguish among causes of decreased bone density, which include primary versus secondary osteoporosis (such as metabolic bone disorders or possible effects of medications) and also other conditions (such as osteomalacia). Clinical considerations should determine what additional evaluation may be warranted to exclude secondary conditions in a patient with low bone density.

Please note that reliable, valid comparisons can not be made between studies which have been performed on different densitometers. If clinically warranted, follow-up study performed at this site would best permit assessment of trend for possible change in bone mineral density over time in comparison to this study.

Thank you for this referral.

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