

# INCIDENTAL MYOCARDIAL FIXATION ON BISPHOSPHONATE BONE SCAN: TWO CASES

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## INTRODUCTION

Extraosseous fixations in scintigraphy reflect, in addition to artefactual fixations, underlying pathologies. Binding of cardiac muscle to bone tracers is suggestive of cardiac amyloidosis. This results from the deposition of amyloid fibrils in the tissues, which seem to be rich in calcium and would explain the origin of the muscle fixation. There are two main forms of cardiac amyloidosis: mutated or wild-type transthyretin (ATTR) and light chain amyloidosis (AL). We report two cases of cardiac fixation discovered incidentally during extension workups of prostatic neoplasia.

## OBJECTIVES

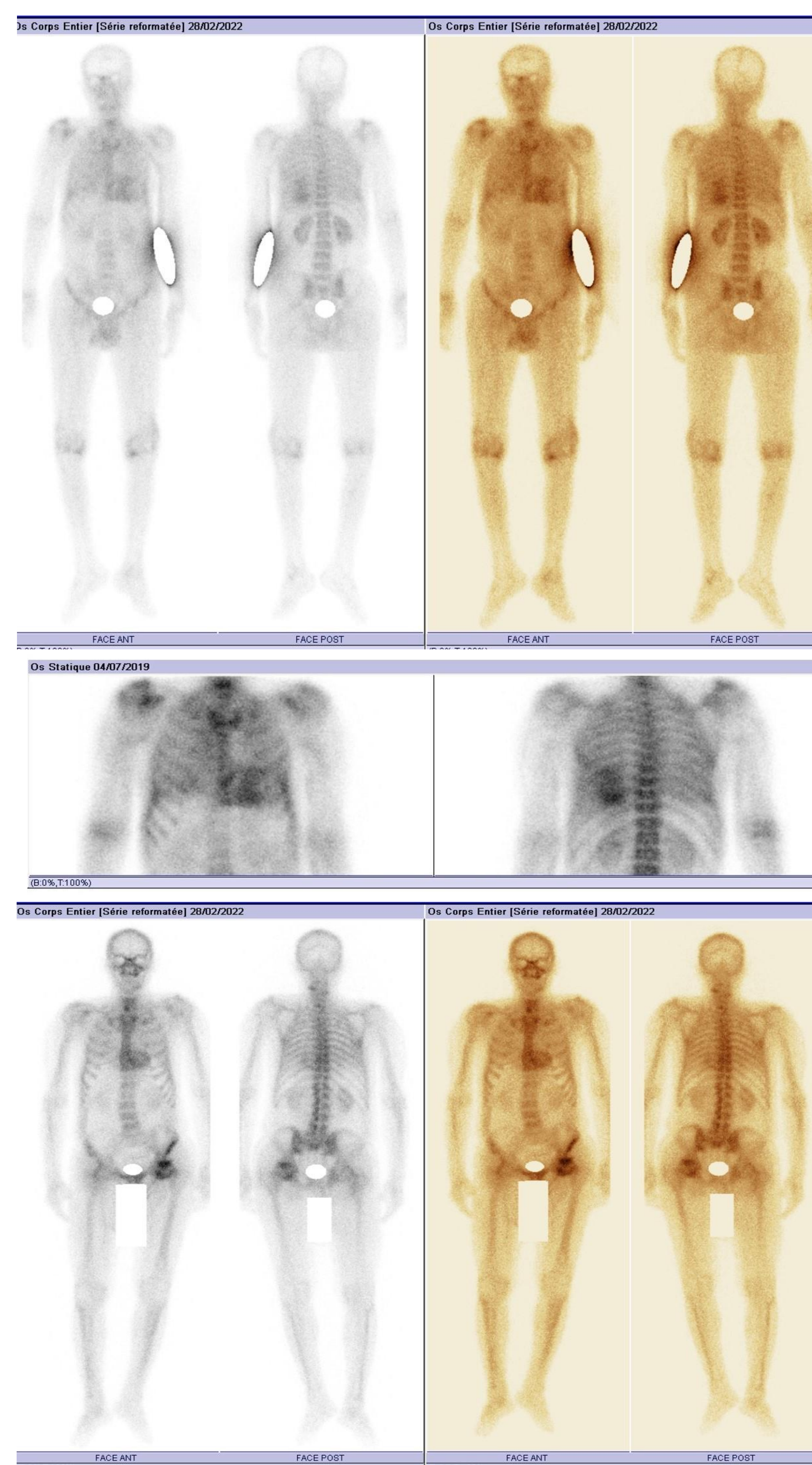
To show the contribution of assay marker scintigraphy in the search for cardiac amyloidosis

## MATERIALS AND METHODS

Two patients aged 70 and 80 years, respectively, were referred for extension workup of prostate adenocarcinoma. A history of cardiomyopathy was found in one of the patients. Bone scintigraphy was performed 3 hours after intravenous injection of 740 MBq of <sup>99m</sup>Tc-HMDP by planar acquisition of the anterior and posterior surfaces with a double-headed gamma camera type MEDISO 2014.

## RESULTAT

In addition to bone fixation, diffuse cardiac fixation and enhanced soft tissue fixation were noted, classified as Perugini score 2 in our two patients. This 4-step visual grading reflects the extent of amyloid infiltration.



## CONCLUSION

Bone tracer scintigraphy is certainly not specific but sensitive and can be used as a diagnostic approach in cardiac amyloidosis. If this fixation is constant and intense in the TTR form; at least equal to a grade 2, it is inconstant in the AL form. The incidental finding of myocardial fixation to bone tracers requires specific biological tests for appropriate management.

## REFERENCES

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