# HYPERPARATHYROIDISM AND MULTIPLE PATHOLOGICAL FRACTURE CAUSED BY PARATHYROID CARCINOMA : A CASE REPORT

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## INTRODUCTION

Parathyroid carcinoma (PC) is a rare endocrine malignancy, accounting for <1% of all cases of sporadic primary hyperparathyroidism (PHPT). The diagnosis of PC is quite difficult due to the lack of reliable clinical diagnostic criteria, and in the majority of cases is made postoperatively at histological examination. The clinical manifestations of PC are primarily due to the excessive secretion of PTH by the tumor. En bloc resection of the parathyroid tumor represents the initial mainstay treatment of patients with PC. Multiple surgical procedures may be required, although surgical morbidity should be taken into account. A 5- and 10-year survival between 77-100 and 49-91%, respectively, has been reported. When the tumor is no more resectable, medical treatment of hypercalcemia has a pivotal role in the management of these patients.

## CASE ILLUSTRATION

A 27-year-old man who suffered multiple recurrent bone fracture since 5 years ago. Now the patient complained of lower limbs weakness and unable to walking, urinating blood, pain in the waist that radiates to the lower abdomen. Examination revealed a neck mass, mimicking a goiter. X-ray of right humerus and bilateral femur showed non-healing fracture (figure 2). Biochemical findings found an elevated parathyroid hormone level and hypercalcemia.

Ultrasound found : Predominantly solid mixed mass with calcification and intramass vascularization that appears to originate from the right parathyroid and is pressing on the right thyroid. suspected right parathyroid mass (figure 1).

Sestamibi scan : delay retention of radioactive at the mass in the midpole of the right thyroid lobe Nomenclature perrier type D (figure 3).

Bone scan : Absence of calcium deposits in other organs of the body. The appearance of diffusely increased radioactivity in the axial bone consistent with a metabolic superscan (figure 4).

Patient was operated with sestamibi scan guidance location and postoperative histopathology result confirmed a right parathyroid carcinoma. Two month after operation parathyroid hormone and calcium levels return to normal and symptom gradually resolves.

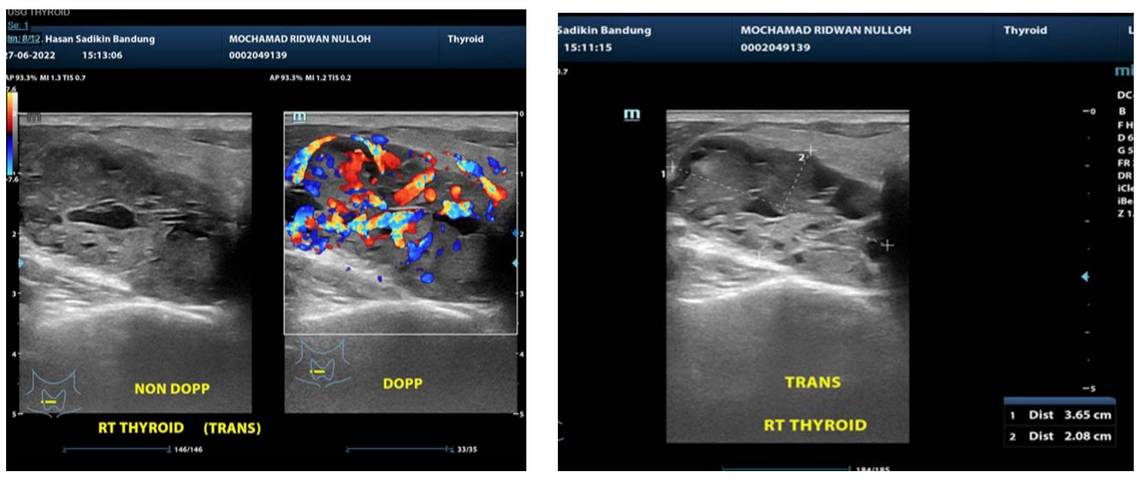


figure 1

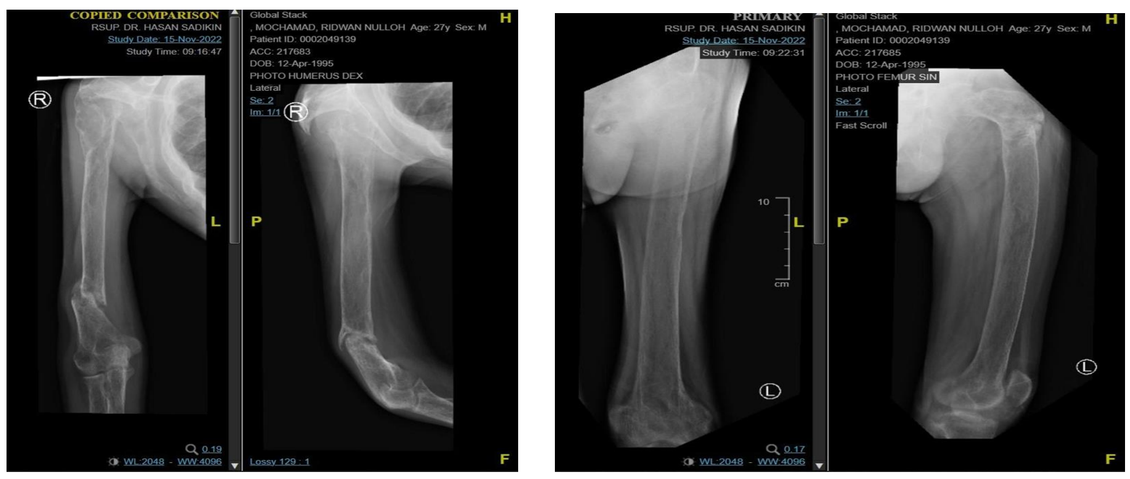


figure 2

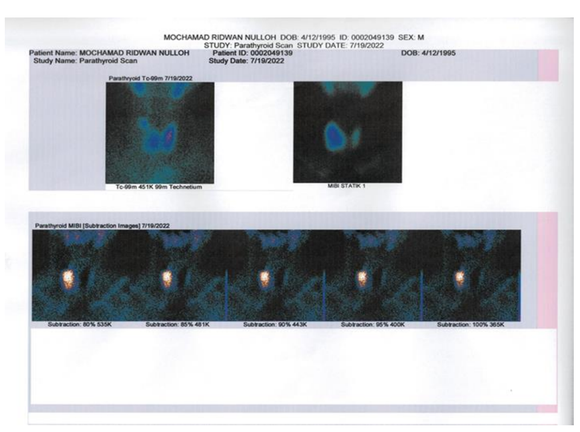


figure 3

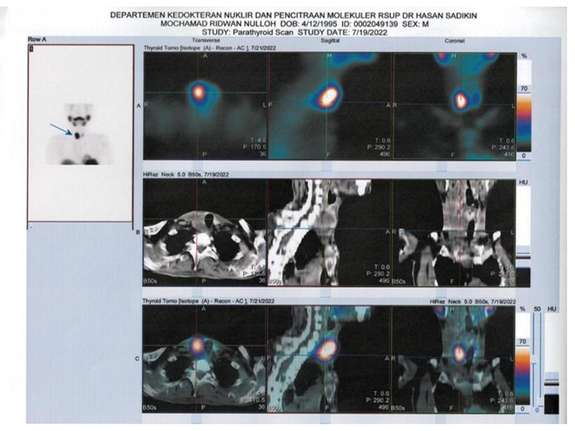


figure 4

## CONCLUSIONS

Parathyroid carcinoma is an extremely rare tumor that continues to present formidable challenges in diagnosis and treatment which are often difficult. Sestamibi examination can help to detect the location of causes of primary hyperparathyroidism such as parathyroid adenoma and parathyroid carcinoma.

## REFERENCES

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