

Primary Hyperparathyroidism: Clinical and Imaging Correlation



S.Meherzi, A. Khbou, M.Ben Aissa, T.Messaoudi, A. Charfi ENT Department-Regional Hospital of Sidi Bouzid

INTRODUCTION

Primary hyperparathyroidism is an endocrine condition characterized by the excessive activity of the parathyroid glands. This leads to an overproduction of parathyroid hormone (PTH), resulting in elevated levels of calcium in the bloodstream. This disorder represents the most prevalent identifiable cause of hypercalcemia. The aim of our study is to assess the clinical and epidemiological aspects of hyperparathyroidism, as well as the correlation between findings in cervical echography and scintigraphy.

MATERIEL AND METHODS

We conducted a retrospective study from 2021- 2024 in the ENT department of the Regional hospital of Sidi Bouzid Tunisia, a total of 6 patients who were diagnosed with primary hyperparathyroidism were included. The variables analyzed were age, sex , primary complaint, Calcium and PTH bloodstream levels, as well as findings in both echography and scintigraphy.

RESULTS

All six participants in this study were female, with an average age of 62.5 years. Among them, half presented with the primary complaint of bone pain. With regards to biochemical findings, hypercalcemia was observed in all patients except one, with an average serum calcium level of 2.6 mmol/L.



Concurrently, there was a notable elevation in parathyroid hormone (PTH) levels, averaging at 487.7 pg/mL. Diagnostic imaging modalities, including cervical echography and technetium 99m scintigraphy, were employed for all six patients. Echography revealed parathyroid nodules in 4 out of 6 cases, while scintigraphy identified a parathyroid adenoma in all 6 cases.



CONCLUSION

Primary hyperparathyroidism is particularly prevalent among women aged 50 to 60 years. Adenoma represents the primary causative factor in the majority of cases, although parathyroid carcinoma and hyperplasia can also contribute. Biological markers serve as the cornerstone for diagnosis, complemented by secondary modalities like echography and scintigraphy. Our study indicates superior sensitivity of scintigraphy over echography in parathyroid nodule diagnosis. Surgical intervention remains the gold standard treatment for parathyroid adenoma, yielding favorable and efficacious outcomes