THE FREQUENCY OF PARATHYROID ADENOMA IN DIABETIC ELDERLY PATIENTS WITH HIGH PARATHYROID HORMON LEVELS

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Introduction: Hyperparathyroidism, which results from a parathyroid adenoma or parathyroid hyperplasia, is a disease of adults. The aim of the study was to evaluate the frequency of parathyroid adenoma in diabetic elderly with high parathyroid hormone levels. Subjects and Method: We recorded diabetic elderly patients with high parathyroid hormone levels between March 2009 and December 2013, retrospectively. Clinical presentation, biochemical, radiological and details of underlying parathyroid lesion were noted. Serum calcium, parathyroid hormone (PTH), calcium, phosphorus, alkaline phosphatase, (25(OH)D vitamin measurements, and determination of 24-hour urinary calcium were performed. Results: In the study, 19 diabetic elderly patients with high parathyroid hormone (PTH 101±11.9 (reference range 12-67) pg/ml) levels were enrolled. Mean age was 69.4±9.7 yrs (range 59 to 81 years, 12 male, 27 female). Mean duration of symptoms was 12±4.1 months. Bone pain and pain in the proximal myopathy were the commonest presentation (11/19) in patients with high parathyroid hormone levels. Parathyroid adenoma was seen in 3/19 patients. In patients with adenoma, mean levels of PTH, calcium, phosphorus, alkaline phosphatase, 24-hour urinary calcium were found to be 165.1±35.1 pg/ml, 11.7±1.9 mg/dl, 1.7±0.1 mg/dl, 100.4±10.0 U/L, 435.8±31.3 mg/24h. Diagnosis was based on the detection of hypercalcemia, together with appropriately high serum PTH levels. And also, diagnosis of adenoma was supported with high resolution ultrasonography and SPECT double-phase 99m Tc-sestamibi scintigraphy. Conclusion: The frequency of parathyroid adenoma is 15.7% in diabetic elderly patient with high parathyroid hormone levels. Future studies are needed.