Abstract

Objectives: The relationship between hyperparathyroidism and lithiasis is quite known, so the study of parathyroid glands is especially mandatory in the face of relapses. Our objective is to analyze both primary hyperparathyroidism (PHPT) associated with renal lithiasis and the evolution of this condition after parathyroidectomy, as well as to study factors associated with the presence of lithiasis or bone pathology, and carry out a review on bibliography. Methods: We describe a retrospective study of a series comprising 287 cases of hyperparathyroidism: 237 of them were primary and the remaining 50, secondary. We have included: sex, age, evolution time and symptoms, diagnostic tests (biochemical, radiological and histological). Factors such as number of episodes prior to diagnosis and treatments were analyzed in patients with symptomatic lithiasis to know whether patients exhibited residual lithiasis after the management of calculi or whether patients underwent episodes after parathyroidectomy, or whether or not they were treated. Statistical analysis was carried out through SPSS 15.0 for Windows. Results: Forty five percent of the patients had suffered lithiasis episodes; 50%, osteopenia/osteoporosis; 23%, musculoskeletal pain; 23%, asthenia and/or depressive syndrome. In 13.5% of cases, diagnosis was supported by the presence of hypercalcemia; no other symptoms were detected. We have analyzed factors that favor or inhibit renal lithiasis formation and compared biochemical parameters from the group of primary hyperthyroidism that exhibited lithiasis (41 patients) with those patients who did not (49). We noted that lithiasis patients showed higher values of calcium, alkaline phosphatase, intact PTH, mean PTH, osteocalcin, and chlorine/phosphate, calciuria and phosphaturia indexes. Student's t test on two independent samples revealed significant statistical differences in calcium levels (p<0.05), intact PTH (<0.05) and osteocalcin. Conclusions: Primary hyperparathyroidism patients with lithiasis presented higher values of parathormone, alkaline phosphatase, osteocalcin, and Cl/P and calciuria indexes than lithiasis-free PHPT patients. These patients exhibit objective improvement of symptoms after parathyroidectomy, and rarely a recurrence of lithiasis, a factor that generally coincides with persistence of residual lithiasis.

Keywords

Primary hyperparathyroidism, Renal lithiasis, Parathyroidectomy.