

**Surgical management of renal hyperparathyroidism: a preliminary series report**

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**Abstract**

**Background:** Renal hyperparathyroidism (RHPT) is a frequent complication of uremic patients on hemodialysis and despite various advances in medical therapy parathyroidectomy is necessary in a semnificative number of cases.

**Patients and methods:** We reviewed our experience (first in Romania) regarding fortythree patients with RHPT operated on in our clinic between 1994 and 2009 evaluating the diagnosis methods, surgical indications, techniques and results together with the evolution of our own therapeutical concept. The study included 22 men and 21 women of median age of 48 (range 15–67) years, performing hemodialysis (n=41) or peritoneal dialysis (n=2) from 7,7 (range 3-13) years respectively. Three patients received an unsuccessful renal graft. The diagnosis was established by anamnesis, clinical complaints (mainly osteo-articular pains, osteoporosis, fractures and skeletal deformities, muscle weakness, severe itching and mental troubles), completed by abnormal values of calcemia, phosphatemia alkaline phosphatasis and intact PTH. Ultrasonography and parathyroid scan were useful in "adenomised" parathyroids and coexistent thyroid pathology.

**Results:** All the patients were operated on. Twentyfour sub-total parathyroidectomies and 19 total parathyroidectomies (6 with autotransplantation), were performed (two video-assisted). There were no deaths and the operative morbidity was 20,9% (vocal cord hemiparesis and postoperative bleeding – each one case, mild transitory hypocalcemia three cases and recurrences four cases). Pathology revealed that RHPT was due to four gland diffuse hyperplasia (n=23) or nodular hyperplasia (n=19). One parathyroid carcinoma (in the fourth parathyroid gland), one thymoma and two papillary thyroid micro-carcinoma was identified. Clinical and biochemical cure was achieved at median term control of 38 (range 6–165) months in 79,0% (n=34) of cases.

**Conclusion:** Parathyroidectomy is effective for long intervals as symptomatic therapy in cases of RHPT appearing in uremic patients on hemodialysis or after renal transplant but the optimal technique must be individualized on each case and still to be debated.

**Key words:** renal hyperparathyroidism, parathyroidectomy

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