

Selective versus subtotal parathyroidectomy in secondary hyperparathyroidism in hemodialysis

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Introduction:

Secondary hyperparathyroidism is a common complication in chronic hemodialysis, The parathyroidectomy represent the ultimate treatment of hyperparathyroidism of dialysis, a fortiori in a context where access to medical treatment is limited.

The purpose of this study is to evaluate the value of the PTX 3/4, selectively, by comparing the rate of parathyroid hormone (PTH) obtained post-operative with that of patients with subtotal PTX.

Patients and methods:

This is a retrospective analytical study single center over 9 years (2010-2019) led to the nephrology department at CHU Ibn Rushd, on patients in end stage renal disease on dialysis with secondary hyperparathyroidism or tertiary with an indication to parathyroidectomy. Two groups were identified, one having undergone parathyroidectomy (PTX) Selective 3/4 (G1), the second a subtotal PTX 7 / 8th (G2).

Results:

Our study included 26 patients with an average age of 39.1 years (13-61) with a seniority average dialysis 102.17 ± 76.4 months and at 3 times a week 50% of patients. Surgical indications were dominated by strong secondary hyperparathyroidism in 90% treatment. 13 patients underwent PTX 3/4 and a PTX 7 / 8th. The evolution has been marked by hypoparathyroidism which involved seven patients G2 is (53.4%). A surgical failure has affected 15.38% of patients, 4.34% were taken surgically, all belonging to the G1. Statistical analysis showed a significant difference between the two groups in terms of hypoparathyroidism in group 2 noted in 53.4% of the patients ($p = 0.005$) and fail more often in group 1 ($p = 0.03$).

Discussion:

In our work, the success rate was over the PTX 7 / 8th of 38.4% with 53.4% of hypoparathyroidism, as opposed to PTX 3 / 4th that the success rate reached 70% without case 'reported hypoparathyroidism. Our results are comparable to those of the Tenon team that reported in a similar study, higher PTH levels in the group of 3 / 4th, and hypoparathyroidism in the group of 7 / 8th.

Conclusion:

Parathyroidectomy 3/4 in HPT2 provides a higher rate of PTH to a PTX 7 / 8th, avoiding the occurrence of hypoparathyroidism with risk of adynamic bone and on mortality. The risk of persistent or recurrent HPT2 is rare in case of selective PTX. Surgical reduction, in case of recurrence of HPT2, remains possible, especially as the remaining parathyroid was not dissected. This risk appears less than definitive iatrogenic hypoparathyroidism if subtotal resection.