

Bilateral Central-Node Dissection with Total Thyroidectomy for Papillary Thyroid Cancer Often Results in Permanent Hypoparathyroidism

Giordano D, et al.

Table 1. Incidence of Transient and Permanent RLNP and Transient and Permanent Hypoparathyroidism (%).

Group	A	B	C	P Value*
Transient RLNP	3.6	3.9	5.5	0.40 (NS)
Permanent RLNP	1.0	0.5	2.3	0.10 (NS)
Transient hypoparathyroidism	28	36	52	See below
Permanent hypoparathyroidism	6	7	16	See below

* NS denotes not significant.

Results

There was no significant difference in the incidence of transient or permanent RLNP among the three groups (Table 1). There were no cases of bilateral permanent RLNP.

Transient hypoparathyroidism was significantly more frequent in groups B ($P = 0.014$) and C ($P < 0.001$) than in group A. Permanent hypoparathyroidism was sig-

nificantly more frequent in group C ($P < 0.001$) than in group A or B.

Conclusions

Limiting prophylactic CND associated with total thyroidectomy for PTC to the ipsilateral side may represent an effective strategy for reducing the rate of permanent hypoparathyroidism.

ANALYSIS AND COMMENTARY

Prophylactic CND in patients with PTC is a contentious topic, as summarized in the discussion of this paper and in an excellent recent review (1) in which two prominent surgeons take divergent positions on this issue. In their review of the literature, the current authors found that the rate of transient RLN injury ranged from 0% to 7.3%, similar to the overall rate of 4.2% they reported in groups B and C together; the rate of transient hypoparathyroidism ranged from 14% to 60%, similar to their rate of 37.5%. In regard to the permanent complications, their rate of RLN damage was 1.2%, similar to the literature review, which showed 0 to 5%, and their rate of hypoparathyroidism of 9.4% was in line with the literature,

which reports a rate ranging from 4% to 11%. In contrast with the current report, a meta-analysis of five studies, including 1132 patients studied by an English group, concluded that performing prophylactic CND at the same time as thyroidectomy resulted in no increased permanent morbidity (2).

It is important to note that, in the current study, the rate of permanent hypoparathyroidism increased only when bilateral CND was performed, and this procedure was necessitated by the finding of tumor in frozen sections of nodes that were sampled for this purpose. This prompts the question of whether the procedure is prophylactic when positive nodes led to the decision to perform bilateral CND. However,

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surgeons who do not favor CND probably do not perform sampling for frozen section of grossly normal nodes. Another limitation of this study is that the total thyroidectomy without CND in group A was performed in an earlier era, so that the groups are not truly comparable.


My current viewpoint is that I leave it to my excellent surgeon to make the decision about CND based on the findings at surgery, and I do not choose a surgeon for my patients based on this issue.

— Jerome M. Hershman, MD

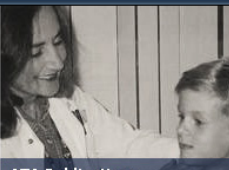
References

1. Mazzaferri EL, Doherty GM, Steward DL. The pros and cons of prophylactic central compartment lymph node dissection for papillary thyroid carcinoma. *Thyroid* 2009;19:683-9.
2. Chisholm EJ, Kulinskaya E, Tolley NS. Systematic review and meta-analysis of the adverse effects of thyroidectomy combined with central neck dissection as compared with thyroidectomy alone. *Laryngoscope* 2009;119:1135-9.


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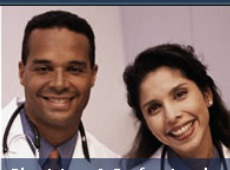
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