Hemithyroidectomy for Intermediate-risk Papillary Thyroid Carcinoma - a Simplified and Effective Care Model

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Keywords:
Hemithyroidectomy
Papillary thyroid cancer
Intermediate-risk

Introduction
The surgical management of intermediate risk papillary thyroid cancer is still a controversial issue. Generally, hemithyroidectomy is considered appropriate for low-risk cases while high-risk cases warrant total thyroidectomy followed by radioactive iodine therapy. However, there is still much debate whether we should perform hemithyroidectomy or total thyroidectomy for intermediate-risk cases.

Objectives
To compare the oncologic results of hemithyroidectomy and total thyroidectomy for intermediate risk papillary thyroid cancer patients at our institution. The bed and cost saving with hemithyroidectomy were also evaluated.

Methodology
We identify from our department head & neck cancer registry database patients with papillary thyroid cancer who underwent surgery in our hospital and were stratified to be of intermediate risk from the GAMES system developed by the Memorial Sloan-Kettering Cancer Institute in New York. Patients demographic data, survival, surgical and pathological details, treatment complication, incidence of operation done under local anaesthesia (LA) or ambulatory setting were recorded and analysed.

Result
From January 1993 to December 2016, 231 patients with papillary thyroid cancer underwent surgery at our institution of which 137 (59%) were identified to be of intermediate risk. 45 (33%) patients had hemithyroidectomy and 92 (67%) patients had total thyroidectomy done. 4 out of 45 (9%) cases of hemithyroidectomies and no case of total thyroidectomy were performed under local anesthesia (LA). 19 (42%) of hemithyroidectomy patients could be discharged on an ambulatory basis as opposed to 16 (18%) in the total thyroidectomy group. The hospital stay was also shorter in the hemithyroidectomy group (mean 1.6 vs 2.6 days, p value=0.15). 29 out of 92 (31.5%) of total thyroidectomy patients experienced transient or permanent hypoparathyroidism though the complication rate excluding this were similar in both groups (4.3 vs 4.4%, p value=0.98. The 5 year DSS in both groups were 100%. The 5 year RFS in the total thyroidectomy and hemithyroidectomy groups were 92% and
100% respectively and were significantly different by the log rank test (p value = 0.02). The median follow up time was 54 months (range 4-276 months)

Conclusion
The 5 year survival in intermediate risk papillary thyroid cancer is favourable. Hemithyroidectomy is a better choice of operation considering its fewer complications and equivalent survival. It can also be done under local anesthesia, reduce hospital stay and can incur enormous cost savings.