

TOTAL THYROIDECTOMY VERSUS PARTIAL THYROIDECTOMY FOR HYPOTHYROID PATIENTS WITH FOLLICULAR NEOPLASM. A COST-EFFECTIVENESS ANALYSIS.

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Background/Purpose: Treatment of patients with hypothyroidism and a finding of thyroid nodule with FNAB of follicular pattern is controversial. It is possible to offer partial or total thyroidectomy, based on the same clinical assumptions. However, patient preferences and costs are not usually considered in the analysis. The aim of this study was to evaluate the most cost-effective surgical strategy in a hypothyroid patient with an undetermined nodule in the FNAB, including complications, reoperation, recurrence and hormonal support in the long term.

Methods: A decision analysis tree was designed, using total and partial thyroidectomy as alternatives. Variables included were complications, reoperation rate by cancer results and need of reoperation because goiter recurrence, extracted from published systematic reviews. Outcomes were patient preference measurements on a visual analog scale from 0 to 10 and direct costs. A sensitivity analysis was made using Tree Age © software. A time horizon of 5 years was selected.

Results: Overall results showed a preference and cost-effectiveness ratio of 44.5 and CO\$ 291.310 for total thyroidectomy vs. 42 and CO\$ 340.044 for hemithyroidectomy, respectively. One way sensitivity analysis showed that hemithyroidectomy will be dominant when reoperation rate was lower than 4%, recurrent laryngeal nerve injury rate was higher than 16%, and definitive hypoparathyroidism was higher than 17% and reoperation for recurrence when the risk was lower than 7%.

Discussion & Conclusion: If patients' preferences and direct costs are included in the decision and under reoperation and complications rate universally accepted, total thyroidectomy is the best treatment for these patients.