Abstract

Objective Assessing the cost-effectiveness of open or thoracoscopic thymectomy compared to medical therapy in managing myasthenia gravis not associated with thymoma. Methods A Markov model was designed for evaluating three strategies’ cost-effectiveness. Transition probabilities were taken from the pertinent literature; the costs were estimated from official tariff manuals. Incremental cost-effectiveness ratios were estimated and probabilistic and deterministic sensitivity analysis was used for clinical variables, costs and the model’s assumptions. Results Thoracoscopic thymectomy was the most effective and least costly strategy and dominated the other two alternatives. The cost per life year gained was Col $ 1 129 531 without discount and Col $ 805 179 with discount. Univariate sensitivity analysis showed that the main variables affecting the results were the effects’ discount rate, the cost of a myasthenic crisis and the probability of complete remission. Thoracoscopic thymectomy was the most cost-effective strategy for different thresholds of willingness to pay in probabilistic analysis. Conclusions Thoracoscopic thymectomy is a cost-effective strategy in the treatment of MG without thymoma.

Keywords

Myasthenia gravis, therapeutics, thymectomy, cost-benefit analysis, Colombia (source: MeSH, NLM).