



THYMOMA - CLINICOPATHOLOGICAL ANALYSIS - A SINGLE CENTRE 5 YEAR EXPERIENCE

Medicine

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ABSTRACT

Thymomas are tumours of the anterior mediastinum.

KEYWORDS

Thymoma, myasthenia gravis, thymectomy, sternotomy

INTRODUCTION

Thymoma is a tumour which originates within the epithelial cells of the thymus, a lymphoid organ located in the anterior mediastinum. This organ is located behind the sternum in front of the great vessel. A relationship between thymoma and myasthenia gravis (MG) was determined accidentally in 1939, when Blalock et al reported the first excision of a thymic cyst in a 19-year-old girl with MG.

Aims and Objectives

We attempted to assess the clinical, radiological and pathological features of thymomas operated at our institute over the last 5 years. We wanted to correlate the post operative outcome with the stage of the disease.

MATERIALS AND METHODS

Records of all patients undergoing thymectomy over the past 5 years from Jan 2014-March 2019 were analysed. The symptoms at presentation, diagnostic modalities, tumour size, type of surgery done, clinical stage and histopathologic type were studied. An attempt was made to correlate histopathologic type with clinical outcomes. Patients who underwent thymectomy for pure myasthenia symptoms were excluded from the study. Our approach was a multi disciplinary one. The patient is evaluated by a neurologist and complete myasthenia work up was done. Anti Ach Receptor Ab were analysed. Optimisation of symptoms if any were carried out before surgery.

Procedure

Our approach was through a midline sternotomy. Complete resection of thymus gland with the thymoma from the thyro-thymic ligament to the diaphragm was done. Complete clearance of thymic tissue from right phrenic to left phrenic nerve was carried out. Any other involved structures were resected along with the specimen if possible. VATS was attempted in 3 cases - could not be completed due to huge size of mass and major structure involvement.

RESULTS

A total of 26 patients were included in the study. 20 were males and 6 were females. In our study 12 patients were undergoing treatment for myasthenia when they were referred to us. 2 patients had ocular myasthenia. 12 patients were asymptomatic in whom mediastinal masses were diagnosed incidentally. The average tumour size in our study was found to be 6.8 cms.

A total of 4 patients developed myasthenia crises in the post operative period which were successfully managed by plasmapheresis. One patient required a tracheostomy in the post op period because of repeated episodes of respiratory failure requiring re intubation. There were 2 deaths in the study. Both the patients had Type C thymoma and myasthenia gravis. One patient had phrenic nerve involvement and died of respiratory failure. The other patient had intractable myasthenia crisis requiring repeated intubations and eventually succumbed to respiratory failure.

Tables

Table 1: Demographics

Sex	Male	Female
No.	20	6

Table 2 : Histopathological classification

Type	A	AB	B1	B2	B3	C
No.	2	1	3	14	0	5

CONCLUSION

Thymoma is a tumour with extremely variable presentation. The association of myasthenia with thymoma is still poorly understood. There is no clear consensus as to what the ideal optimisation strategy before surgery. There have been no long term follow up studies to determine whether the dose of anti myasthenia medication is reduced following thymectomy. A multidisciplinary approach involving the neurologist, oncologist and cardiothoracic surgeon is required in the successful management of thymomas(2). No clear histologic distinction between benign and malignant thymomas exists. The propensity of a thymoma to be malignant is determined by the invasiveness of the thymoma. Malignant thymomas can invade the vasculature, lymphatics, and adjacent structures within the mediastinum. The 15-year survival rate is 12.5% for a person with an invasive thymoma and 47% for a person with a noninvasive thymoma. Death usually occurs from cardiac tamponade or other cardiorespiratory complications.

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