A systematic review of outcomes in patients with solitary fibrous tumours of the pleura (SFTP)

Background

Solitary fibrous tumours of the pleural (SFTP) are rare tumours arising from mesothelial parenchymal cells and are often benign, although a proportion may follow a malignant course. Treatment is often surgical resection but there are currently no management guidelines due to the paucity of evidence. We therefore conducted a systematic review of the available literature of management of pleural fibromas.

Methods

A broad search strategy of four large databases was undertaken for any articles related to the management of SFTP from inception of the database until November 2017. There were no randomised control trials thus large case series were the mainstay of evidence for the systematic review. Data was collected according to a pre-specified protocol and assessed by two reviewers.

Results

25 papers were suitable for data extraction from an initial review of 3447 abstracts, including a total of 1424 patients. 15/25 papers only included patients with SFTP who underwent a resection. The majority of papers required a histological diagnosis for the patient to be included in the study. Rates of recurrence ranged from 0% to 42.9% and tumour sizes ranged from 0.3cm to 39cm. The follow up interval for the studies was variable. 11/14 studies had no operative mortality, and one reported a mortality of 3.6% and morbidity of 11.8%. 5 studies evaluated whether tumour size affected outcomes, 2 showed poorer outcomes with larger size tumours but 3 did not show any association. 2/6 papers showed that the presence of malignant criteria did not significantly predict a greater likelihood of recurrence, likewise there were conflicting results regarding tumour origin and the type of attachment to the pleura affected recurrence.

Conclusion

A number of factors could have affected the wide range of recurrence rates including the duration of follow up, bias due to the nature of patients referred to and operated on in each centre and size of tumour resected. Although the operative mortality is low, the risk exists and published data collected rarely includes patients who underwent conservative management. Information on patients who do not undergo surgical resection and are radiologically followed are poorly represented in the published literarture, and this now needs to be collated to allow clinicians to evaluate the pertinent risks and benefits when considering management of these patients.