


be better than with non-surgical treatment. Comparable data are limited but a Nordic study has reported survival from chemotherapy alone in early-stage disease of 22 months [5]. In the IASLC database, postoperative survival was inferior to this in Stages III and IV disease and in non-epithelioid cell types. The inference is that surgery with life prolongation as its aim should be limited to those patients with epithelioid MPM without nodal metastases, particularly in the upper mediastinum. This area is proposed to represent a later stage of MPM based on a ‘gravitational hypothesis’ in which the disease is suggested to progress from the base to the apex of the hemithorax. The poorer prognosis of paratracheal nodal disease suggested from several series [3, 6] promotes the use of mediastinoscopy in patient selection for radical surgery.

As alluded to above, there is increasing enthusiasm for lung-sparing radical surgery over EPP. The reduced risk of pneumonectomy avoidance may be as high as 40% [7] together with the potential for preserved respiratory function. The recent understanding that macroscopic complete resection can be achieved with organ preservation [2, 8] even in locally advanced disease suggests not only the potential for reduced operative complications but also significant extension of the potential population suitable for excision. So where does this leave EPP?

Some have used the results of the MARS study [9] to argue that EPP no longer has a role in mesothelioma surgery. As a co-investigator, I feel it is important to clarify that the MARS trial was a feasibility study never powered to show a survival difference between EPP and no EPP. As such, the results have been overinterpreted. The only important conclusion was that it would not be feasible to run a randomized phase III study in the UK due to slow recruitment and emphasizes the preference for an operation with a larger potential uptake in the elderly or less fit. The importance of obtaining a macroscopic complete resection means that EPP may be needed where tumour invasion precludes lung sparing. Furthermore, the IASLC database suggests there may be a survival benefit over lung sparing in Stage I disease [4] which is, unfortunately, not a common state at presentation. In the majority of cases, therefore, lung-sparing pleurectomy appears to be the surgical option of choice.

So what are we to call this lung-sparing alternative to EPP? Bolukbas et al. [2] have used the term ‘lung-sparing radical pleurectomy’ whereas the IASLC/IMIG survey [10] concluded that the term ‘extended pleurectomy/decortication’ should describe the removal of parietal and visceral pleura with diaphragm and/or pericardium. Since ‘decortication’ implies removing the cortex and leaving the visceral pleural layer as in empyema surgery and ‘radical’ implies a curative procedure, we prefer the term ‘lung-sparing total pleurectomy’ if macroscopic tumour clearance is achieved.

The experience of the MARS study should not discourage further randomized studies of mesothelioma surgery. Evidence is needed to counter the accusation of selection bias as the explanation for prolonged survival with intensive multimodality therapy for MPM. In the UK, we are currently preparing to embark on the MARS 2 study in which lung-sparing total pleurectomy and chemotherapy will be compared with chemotherapy alone in resectable MPM. We have just completed recruitment to the MesoVATS study in which debulking video-assisted partial pleurectomy (intentional R2 resection) was compared with pleurodesis alone. Symptom control together with survival were outcome measures and while a positive result (surgery beneficial) would enhance the case for even more extensive surgery in MPM, a negative result may just reflect the futility of incomplete cancer surgery. Lung-sparing total pleurectomy will continue to be evaluated.

The need for surgical treatment for mesothelioma has never been greater in Western Europe. Increasing experience from a growing number of centres has highlighted the importance and the benefit of applying surgical oncological principles. These include patient selection based on pathological staging and the achievement of tumour clearance with maximal preservation of normal tissue. Meticulous surgical technique and trial recruitment are paramount in future practice. The development of mesothelioma specialist centres is a natural progression.

REFERENCES