



## JTD special series ‘Malignant and benign pleural disease’

There have been a number of significant publications in the field of pleural disease over the last decade or so, and these have been consolidated in various international guidelines such as the British Thoracic Society (BTS) Pleural Disease Guidance 2023, the BTS Pleural Procedures Statement 2023, the American Association for Bronchology and Interventional Pulmonology (AABIP) Evidence-informed Guidelines and Expert Panel Report for the Management of Indwelling Pleural Catheters and Management of Malignant Pleural Effusions-An Official American Thoracic Society, Society of Thoracic Surgeons, and Society of Thoracic Radiology (ATS/STS/STR) Clinical Practice Guideline (1-4). However, there are a number of unanswered questions and areas which have not specifically discussed. This special edition on pleural disease thus aims to answer some of those, as well as explore some of the evidence around poorly studied areas of pleural medicine.

The BTS Pleural Procedures Statement looks at the practical aspect of providing medical thoracoscopy. This is one of the cornerstones of obtaining a biopsy in patients with pleural effusion, and is very safe, has high diagnostic sensitivity and specificity. There are many other applications for thoracoscopy as Fantin *et al.* describe (5). The use of thoracoscopy in pneumothorax is growing and can be safe in experienced centres. The same can be said for its use in early pleural infection, retained haemothorax and foreign body recovery although it must be noted that robust evidence is lacking.

One of the main concerns with indwelling pleural catheters is infection—there are various retrospective studies that attest to safety, even with concurrent systemic anti-cancer therapy which are referenced in the above guidelines. Sethi *et al.* (6) summarize that evidence. One of the unanswered questions is about bacterial colonisation of the catheters and the clinical relevance of that. Sethi *et al.* also present preliminary evidence that biofilm formation affects the indwelling catheters, and that this might be relevant to the development of pleural infection, and that although most of those superficial infections can be satisfactorily treated with cover for *Staphylococcus aureus*, catheter removal might well be warranted due to colonisation and for deep seated infections. This would be diversion from established practice as often the expert opinion is that the catheter can be salvaged.

The so called benign pleural effusions do not feature in the guidelines. Wilkins *et al.* (7) provide a concise review on hepatic hydrothorax, highlighting mortality rates of 10%, 26% and 57% at 30 days, 90 days and 1 year in some studies. Repeated pleural interventions also carried increased risk of complications (8% quoted) and there might be a role for indwelling catheters as part of a patient centred approach. Similarly, Wijayarathne *et al.* (8) provide a similar review on cardiac related pleural effusions, highlighting that if those types of pleural effusions are bilateral and transudative, the risk of mortality is increased. The limitations of Light’s criteria are discussed alongside the application of indwelling catheters, whilst drawing on some of the recent pleural studies in that area. Finally, Bhatnagar *et al.* (9) provide a comprehensive review on chylothorax, a rare pleural entity, which is very difficult to manage. The anatomical considerations are well described, and non-aetiology concentrated upon. The highlights of the article are differentiating between true and pseudo-chylothoraces, the importance of nutritional status and an individualised approach to management.

I hope that this special edition on malignant and benign pleural disease will generate interest for the general readership and provide a focal point of reference.

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