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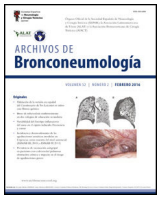

Editorial

Timing of Indwelling Pleural Catheters in Malignant Pleural Effusion—Do Not Delay!

Indwelling pleural catheters (IPCs) are one of the main modalities of treatment in malignant and being pleural effusions. Since the seminal TIME2 trial[1] which showed that there was no difference in breathlessness at 6 weeks between talc pleurodesis and IPCs and a reduction in the length of stay with IPCs, IPCs have been widely adopted. Multiple guidelines have been written[2,3] but one of the unanswered questions is the timing of intervention in malignant pleural effusions (MPE). This is where the article by Porcel et al.[4] plugs a gap in the literature. The updated British Thoracic Society pleural disease guidance,[2] which is still in draft form, suggests that definitive pleural interventions should perhaps not wait for anti-cancer therapy. In our centre for example, a large pleural unit,[5] our oncology service insists on definitive management of the malignant effusion (if feasible, and if the patient is symptomatic) before any anti-cancer therapy is started. They thus performed a systematic review of randomised controlled trials, cohorts and series of over 20 patients to determine the efficacy and safety of IPC in MPE in relation to the timing of anti-cancer therapy. The methodology was sound, and the risk of bias was appropriately assessed. Out of nearly a thousand records, only 10 were eventually analysed which signals the dearth of data concerning timing of IPC insertion. None of those were randomised trials and only 2 enrolled patients prospectively, and the limitations of those are considerable. Nevertheless, the authors found that the commonest tumours were lung and breast cancers. The pooled estimated rate of IPC-related infections was 2.85% (95% confidence interval: 2.24–3.45; I^2: 73.39%) at any time, irrespective of anti-cancer therapy, which is reassuring for the pleural community at large. There was a signal that those with IPCs undergoing anti-cancer therapy had better survival: whilst this is encouraging, it must be stressed that the studies analysed did not look at the patients' initial performance status as those who might be fitter probably IPCs fitted, and it was not feasible to look at for example time to removal of IPC in relation to anti-cancer treatment as there was not enough granular data. Further randomised studies of such patients for the above specific outcomes should help. The survival data is interesting as there is entrenched dogma that if a patient has a presumed malignant effusion and is asymptomatic from it (and doesn't intervention for diagnostic purposes), then that effusion should be left alone. However, there is increasing evidence that MPE, a protein rich fluid, has pro-oncogenic properties and suppresses anti-tumour immune activity. Asciak et al. found that patient derived cancer cells from malignant pleural mesothelioma, breast carcinoma and lung carcinoma all grew in pleural fluid, raising the possibility that the presence of any pleural effusion in a patient with cancer might encourage cancer growth in the pleural space.[6] Correlation is not causation but do patients with early IPCs do better because the pleural space is drained? Future prospective clinical and translational studies are thus required.

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Conflict of interests

The authors declare to have no conflict of interest directly or indirectly related to the manuscript contents.

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