Journal club

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data. However, this remains an important piece of research allowing more accurate powering of future interventional trials with a patient-centred outcome.

PLEURAL ASPIRATION: 'HANDS-ON' OR 'HANDS-OFF', IT MAKES NO DIFFERENCE!

Thoracocentesis is a common medical procedure and considered 'low risk', it is nonetheless associated with potential morbidity, including pain. It has been theorised that excessive negative pleural pressure during pleural intervention may be a mediator of some of these complications. Lentz *et al* (*CHEST* 2020;157:702) randomised 142 participants undergoing therapeutic thoracocentesis into active aspiration (via 60 mL syringe) or gravity (via drainage bag suspended 100 cm below catheter). They noted no significant differences in their primary outcome; chest discomfort as measured by a 100 mm VAS pain score, 5 min postprocedure (mean difference 5.3 mm; 95% CI -2.4 to 13; $p=0.12$) or in other secondary outcome measures such as Borg dyspnoea scores, total volume drained and rates of pneumothorax ex vacuo, re-expansion pulmonary oedema or bleeding. The outcomes were also similar in the subgroup with large drainage volumes ($n=31$, volume >1500 mL). They did note that total procedural time was shorter in the active aspiration group (mean 10.5 ± 6.1 min vs 17.8 ± 9.7 min). There were some methodological problems including a slight imbalance in group allocations, discrepancy in baseline preprocedural pain scores between groups and some patients in the suction group receiving continuous wall suction, outside of the study protocol. However, these factors should have biased the results towards superiority of gravity drainage rather than the null hypothesis. The study results allow the operator to decide how 'hands-off' they would like to be (and how much time they have!).

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ONE STEP FORWARD IN THE FIGHT AGAINST MALIGNANT PLEURAL MESOTHELIOMA BUT NOT QUITE CHECKMATE

Malignant pleural mesothelioma (MPM) is a highly aggressive cancer associated with prior asbestos exposure. Most patients present with unresectable disease and chemotherapy is their only option. Despite treatment with pemetrexed and platinum-based agent outcomes remains poor, however checkpoint inhibitor therapy has improved outcomes in other malignant diseases. Baas *et al* (*Lancet* 2021;397:375) report the interim analysis of a randomised clinical trial of nivolumab and ipilimumab compared with standard care. In this global, open-label study participants, previously untreated, were randomised to receive nivolumab and ipilimumab ($n=300$) or pemetrexed and cisplatin/carboplatin ($n=284$). Immunotherapy resulted in an overall survival (OS) benefit of 18.1 months (95% CI 16.8 to 21.4) versus 14.1 months (12.4–16.2) in the chemotherapy group with a HR of 0.74 (96.6% CI 0.60 to 0.91). In subgroup analysis, while a modest improvement in OS was seen in the epithelioid group (18.7 months vs 16.5 months), a far greater effect was noted in the non-epithelioid group (18.1 months vs 8.8 months, HR 0.46 (0.31–0.68)). Safety profile was similar to that reported with the same combination used in lung cancer trials with a higher rate of discontinuation due to treatment toxicity (20% compared to 8%). The most common adverse effect with immunotherapy was diarrhoea (21%) and serious adverse event was colitis (3%). With CheckMate 743, it seems we have finally made some headway in the management of MPM, but as ever, patient selection remains key.

SECONDARY SPONTANEOUS PNEUMOTHORAX: THE DEVICE MATTERS!

There has been a move towards ambulatory management of pneumothoraces, but the performance of this in patients with secondary spontaneous pneumothorax (SSP) remains unclear. The Hi-SPEC trial by Walker *et al* (*Eur Resp J* 2020:

doi: 10.1183/13993003.03375-2020) compared ambulatory care (AC) of SSP with a pleural vent (PV) or an Atrium Pneumostat (AP) valve attached to a chest drain to standard care (SC) with chest drain and underwater seal. A total of 41 patients were randomised SC ($n=20$) or AC ($n=21$; PV=13 and AP=8). There was no statistically significant difference in their primary outcome: hospital length of stay (LOS), AC median LOS 6 days (IQR 1 to 15.5), SC 6 days (2.25 to 15.50). While the LOS following initial admission was shorter in AC (non-significant), this was offset by the sizeable early treatment failure and readmission rates which predominantly occurred in the PV group (46% required an additional chest drain), such that following an urgent safety review its use in the trial was discontinued. The trial results need to be interpreted carefully as it was underpowered having failed to reach the original sample size ($n=66$), but the study indicates that if AC is to be used in SSP, the device needs to be appropriately selected.

THORACOCENTESIS: OUCH, BUT BY HOW MUCH?

Pleural interventions by their very nature are invasive and may be painful. Pain or chest discomfort is an important patient-centred outcome measure and is frequently assessed using a Visual Analogue Scale (VAS). Currently, the minimally clinically important difference (MCID) in pain for pleural procedures is based on studies in emergency department trauma patients (MCID=13 mm). Dahlberg *et al* (*BMJ Open Res* 2020;7: e0006677. doi:10.1136/bmjresp-2020-000667) performed a retrospective analysis on two recent prospective therapeutic thoracocentesis trials. Across 263 thoracocenteses, they correlated change in 100 mm VAS pain scores from the start of the procedure to 5 min after catheter removal against a 7-point Likert scale, which directly indicated the degree to which discomfort was experienced. In this way, they concluded that a 'small, but significant increase in discomfort' was associated with a mean VAS score of 16.04 mm (95% CI 6.87 to 25.21), thus establishing the MCID for chest discomfort in pleural interventions as 16 mm. Some limitations include the overall small number of patients (23/263) within the Likert group that the VAS score was derived from need to be considered when interpreting these

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