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| The incidence of complications associated with the use of small-bore intercostal catheters in obese patients |
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| **Introduction/Aim:** Small bore intercostal catheter (SBICC) use is associated with complications related to both insertion and maintenance. This study aims to describe the effect of obesity on the rate of these complications.**Methods:** A retrospective review of medical records to examine consecutive SBICCs inserted over a one year period in a single centre. Data was collected regarding patient demographics including BMI as well as complications relating to both insertion and maintenance of SBICCs. The primary outcome was the relative risk of both insertion and maintenance complications in those with a BMI >30m2/kg (obese) compared to those with a BMI <30m2/kg (non-obese).**Results:** 64 patients were analysed. The frequency of complications related to the insertion and maintenance of an SBICC were 47% and 6.7% respectively in obese patients. Whilst it was 24% and 41% in non-obese patients. The relative risk of a complication related to insertion of an SBICC was 1.91 (95% CI 0.92-3.96);n 64, p=0.084 in obese compared with non-obese. These results show a relative risk of 0.16 (95% CI 0.024 – 1.12); n=64, p=0.065 of maintenance complications in obese patients compared to non-obese patients**Conclusion**: This study shows a signal towards obese patients being associated with a higher rate of complications with SBICC insertion compared to non-obese patients. This may at least be in part explained by greater technical difficulty in the use of ultrasound, greater chest wall thickness and requirement for non-standardised equipment (e.g. spinal needle) in these patients. This study also shows a signal towards non-obese patients being associated with an increased rate of complications related to SBICC maintenance compared to obese patients. This maybe in part due to increased mobility increasing the rate of tube migration and kinking in non-obese patients.Further studies are required to define the risk of complications associated with SBICC usage in obese versus non-obese patients.**Grant Support:** Nil |