underwent large volume aspirations for symptom control. 3 indwelling catheters (IPC) and 2 intercostal drains were placed for treatment refractory effusions. There was one pleural space infection in 6 months, related to an IPC. There were 3 deaths at 12 months, none related to pericarditis/myocarditis.

Conclusions Pleural effusions occur in approximately a third of patients with pericarditis/myocarditis and are predominantly bilateral. Treatment refractory cases require pleural intervention: aspirations, drains and IPCs are all viable options. Limitations of this study are its retrospective nature, manual searching techniques and incomplete data related to values such as CRP. Our sample size is also too small to infer meaningful data on aetiology, pleural fluid biochemistry and gender predominance. A prospective study is thus warranted.

REFERENCE

1. <https://pubmed.ncbi.nlm.nih.gov/30868443/>

P196 PNEUMOTHORAX AND CARDIAC DEVICE IMPLANTATION: A 10 YEAR RETROSPECTIVE REVIEW FROM A SINGLE CENTRE IN THE NORTH EAST OF ENGLAND

K Jackson, C Storey, M Carling, R Davidson, G George, O Kent, A Aujayeb. *Northumbria HealthCare NHS Foundation Trust, Newcastle, UK*

10.1136/thorax-2021-BTSabstracts.305

Introduction In patients undergoing pacemaker (PPM) implantation or cardiac resynchronization, pneumothorax incidence was 1–6%, and commoner in women over 80 years of age with chronic obstructive pulmonary disease (COPD).^{1 2} No local review has ever been performed. We sought to add to the literature and inform local practice.

Methods Local Caldicott approval was sought for a review of cardiac device implantations from the local cardiological database. Those identified as being complicated by a pneumothorax on radiology reports were analysed further with basic demographics, pleural interventions and outcomes. Continuous variables are presented as mean ($\pm$ range) and categorical variables as percentages where appropriate.

Results 2056 implantation episodes from Jan 2010-Dec 2020 were reviewed. 70 pneumothoraces (3.4%) were identified, all related to PPM insertion. Mean age was 68.1 years (17–97), 39 were female, and 31 male. All pneumothoraces were on the side of the PPM (3 right, 67 left). 36 pneumothoraces were small, and 34 large according to British Thoracic Guidance criteria. 56 patients with minimal symptoms (30 were large pneumothoraces) were observed initially, with 5 requiring intercostal drainage (ICD) due to enlargement of pneumothorax and progressive symptoms. 14 pneumothoraces were treated with ICD as 1st line treatment: mean age was 78 years (69–89) and 8 had concurrent COPD. 5 pneumothoraces were large and all patients had significant symptoms. All pneumothoraces resolved within 6 weeks on follow up radiographs. There was no associated mortality.

Conclusions Pneumothorax rates following cardiac device implantation are low. Irrespective of size, such iatrogenic pneumothoraces with minimal symptoms can often be observed with adequate safety netting. Limitations of this study are its retrospective nature and manual searching techniques. Specific reasons for causing a pneumothorax such as excessive lead manipulation were unable to be identified retrospectively. A prospective study is thus warranted.

REFERENCES

1. <https://doi.org/10.1093/europace/eus054>
2. <https://doi.org/10.1161/circulationaha.110.976076>

P197 SECONDARY SPONTANEOUS PNEUMOTHORAX: EXAMINING THE EQUIPOISE

¹S Walker, ²E Carlton, ¹N Maskell. ¹Academic Respiratory Unit, Bristol, UK; ²North Bristol Trust, Bristol, UK

10.1136/thorax-2021-BTSabstracts.306

Introduction and Objectives Current BTS guidelines recommend intercostal chest drain (ICD) for management of large secondary spontaneous pneumothorax (SSP) on the presumption that needle aspiration (NA) is less likely to be successful.¹ This premise has been challenged by a randomised control trial (RCT) by Thelle et al, which found NA halved the length of hospitalisation with fewer complications compared to ICD in patients with SSP.² We conducted a study to examine current views on management of SSP in the UK.

Methods Respiratory and emergency healthcare staff were invited, via personal email and via social media, to complete an online survey. The composed of 5 questions on a clinical vignette of a symptomatic patient with large (>2cm at hilum) SSP with no signs of respiratory compromise.

Results There were 70 responders: 64% from emergency medicine and 23% respiratory medicine. 47% were consultant grade; 44% doctors in training. 64% stated they would manage this patient with an ICD; 26% with NA; 7% with conservative care. For responders who choose ICD, the main factor influencing their decision was current clinical guidelines (64%), followed by higher anticipated success rate with chest drain (24%); familiarity of chest drain (8%) and concerns about patient safety (4%). Clinicians would be more likely to choose NA if the patient had minimal symptoms (57%), if there was a smaller pneumothorax (72%) or if there was patient preference for NA (59%), and less likely with greater severity of lung disease (60%). Most responders (89%), when presented with the Thelle et al study, would consider taking part in an RCT of NA versus ICD in SSP.

Abstract P197 Figure 1

Conclusion Our survey highlights that whilst most responders would manage a symptomatic patient with a large SSP with a chest drain, over a third would choose a less invasive approach. Current guidelines appear to be the leading justification. There is current equipoise in the management of SSP.

REFERENCES

- MacDuff A, Arnold A. Management of spontaneous pneumothorax: BTS Pleural Disease Guideline 2010. *Thorax*. 2010;**65**(Suppl 2):ii18–31.
- Thelle A, Gjerdevik M. Randomised comparison of needle aspiration and chest tube drainage in spontaneous pneumothorax. *ERJ*. 2017;**49**(4):1601296.

P198

OUTCOMES OF AUTOLOGOUS BLOOD PLEURODESIS IN PERSISTENT AIR LEAK: AN EIGHT-YEAR RETROSPECTIVE STUDY

K Ur Rehman, L Okiror, P Sivakumar. *Guys and St Thomas NHS Foundation Trust, London, UK*

10.1136/thorax-2021-BTSabstracts.307

Abstract P198 Table 1 Results

Variable	Number
Number of attempts at ABP, median (range) n=68	1 (1–3)
Indications for ABP (%)	
Post thoracic surgery	48/68 (70.6)
Secondary pneumothorax	14/68 (20.6)
Empyema with bronchopleural fistula	4/68 (5.9)
Other	2/68 (2.9)
Volume of blood used for ABP, mean (SD), ml n=56	55.3 (16.8)
Time to cessation of PAL, median (range), days n=47	3 (1–7)
Size of chest tube (%)	
≥20 F	52/68 (76.5)
≥12 - <20 F	13/68 (19.1)
<12	3/68 (4.4)
Inpatient ABP outcome (%) n=66	
Secondary pneumothorax	
Cessation of PAL	11/14 (78.6)
Persistence of PAL	2/14 (14.3)
Reduction in PAL	1/14 (7.1)
Post thoracic surgery	
Cessation of PAL	32/48 (66.7)
Persistence of PAL	12/48 (25)
Reduction in PAL	4/48 (8.3)
Empyema with bronchopleural fistula	
Cessation of PAL	4/4 (100)
Success rate of ABP as a second line therapy (%) n=23	
Post talc pleurodesis	8/10 (80)
Post endobronchial valve	6/8 (75)
Post thoracic surgery	1/5 (20)
Treatment following failure of ABP (%)	8/68 (11.8)
Thoracic surgery	3
Endobronchial valve	2
Talc pleurodesis	2
Complications (%)	
Pleural infection	8/68 (11.8)
Tube blockage	1/68 (1.5)
Severe chest pain	1/68 (1.5)
Desaturation	1/68 (1.5)
Recurrence of PAL within one year (%)	1/19 (5.2)

Introduction and Objectives Autologous blood pleurodesis (ABP) is one of the treatment options for recurrent pneumothorax and postoperative persistent air leak (PAL) following lobectomy.

We aimed to assess the effectiveness of ABP in PAL.

Methods Patients who underwent ABP from January 2013 to June 2021 were identified retrospectively through the procedure coding database and review of the pleural booking diary. Data was collected on demographics and treatment outcomes. Success was defined as cessation of PAL permitting drain removal within seven days of ABP.

Results 68 patients underwent ABP averaging 8.5 patients per year. Mean age was 63 (SD 17.23). 18/68 (26.5%) patients were females.

Results are summarised in table 1.

Conclusion In this selected population, ABP is effective in the management of both surgical and medical PAL. Our data suggests high success rate not only as a first line therapy for PAL but also in cases where talc pleurodesis or endobronchial valve placement has failed.

P199

THE ROLE OF MULTI-LEVEL INTERCOSTAL NERVE BLOCK IN LOCAL ANAESTHETIC THORACOSCOPY (LAT)

¹S Ajmal, ²D Walker, ¹S Johnstone, ³E Caruana, ¹M Tufail, ¹RK Panchal. ¹Institute for Lung Health, Glenfield Hospital, University Hospitals of Leicester NHS Trust, Leicester, UK; ²Department of Anaesthetics, Glenfield Hospital, University Hospitals of Leicester NHS Trust, Leicester, UK; ³Department of Thoracic Surgery, Glenfield Hospital, University Hospitals of Leicester NHS Trust, Leicester, UK

10.1136/thorax-2021-BTSabstracts.308

Introduction Intercostal nerve block (ICNB) has long been used as an adjunct to analgesia in thoracic surgery. It provides effective pain relief and a reduction in morphine requirement.¹ Local anaesthetic thoracoscopy (LAT) is performed by respiratory physicians usually under conscious sedation with local anaesthesia at the port insertion site. This however does not sufficiently anaesthetise the parietal pleura and patients can experience pain during biopsies.

Objectives To compare LAT with multi-level ICNB versus standard care to determine if it reduces pain, length of stay (LOS) and analgesia use.

Methods Prospective analysis of patients undergoing LAT between January and June 2021. In the ICNB group, Levobupivacaine 0.5% 10ml was mixed with Xylocaine 1% (lidocaine with adrenaline 1:200,000) 10ml and administered as 4ml per rib space (up to 5 rib spaces) at the angle of the rib immediately before LAT. Standard care received a maximum of 20ml Xylocaine 1% at the LAT port site only. Visual Analogue Score (VAS) for pain (0–100mm) was measured at 1 and 2 hours post LAT and daily including a record of total analgesia used.

Results 20 patients [10 ICNB vs 10 standard care group]. Mean age 68 years with 70% males. The most common diagnosis was mesothelioma (35%) and fibrinous pleuritis (35%). There were no complications associated with ICNB.

Conclusions Patient reported VAS for pain in the ICNB group was reduced by 41mm at 1 and 2 hours post LAT and 38mm at day 1 (p<0.05) compared to standard practice. [Minimal Clinically Important Difference >16mm].² Mean LOS was reduced by 58% in the ICNB group (p<0.05). Oral morphine and paracetamol use reduced by 40% and 56%, respectively.