MEETING REPORT

Abstract 5: BSE pulmonary hypertension guidelines: audit and future perspectives

J A Willis PhD[1], A Kendler-Rhodes MB ChB[1], O Slegg BSC[1], K Carson MD FRCP[1], J Easaw MD FCP FESC[1], S R Kandan MBChB MRCP[1], J C L Rodrigues BSc MBChB MRCP FRCR FSCMR PhD[1], R MacKenzie-Ross MB BChir[1], T Hall MBBS MRCP FRCR[1], G Robinson FRCR[1], D Little MBChB FRCR[1], B Hudson MBBS FRCR[1], J Pauling[1], S Redman[1], R Graham[1], G Coghlan[2], J Suntharalingam BSc FRCP MD[1,3] and **D X Augustine BSc MBBS MSc MD FHEA FRCP[1]**

[1]Royal United Hospitals Bath, NHS Foundation Trust, Bath, UK
[2]Department of Cardiology, Royal Free Hospital, London, UK
[3]University of Bath, Bath, UK

Introduction

BSE guidelines to assess the probability of pulmonary hypertension (PH) have been recently published. We present a contemporary dataset of patients attending a regional service for the evaluation of PH. We audit BSE guidelines and highlight areas for potential development.

Methods

In total, 174 patients attending from August 2017 for PH assessment had echo and right heart catheter (RHC) data analysed from the RUH PH registry.

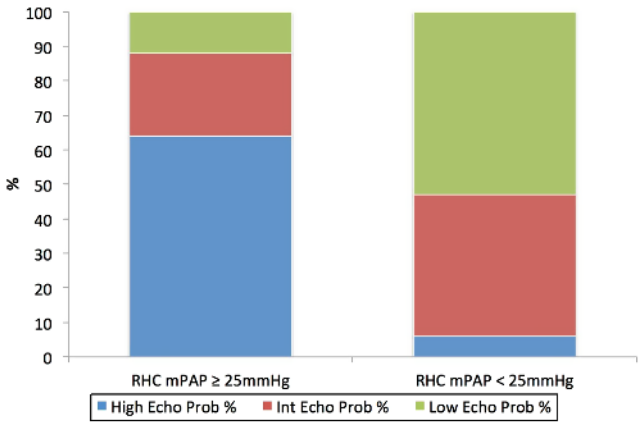

Figure 5
Percentage distribution of echo probability of PH in those with and without RHC PH.

Results

Of the 174 patients, 142 (82%) were diagnosed as having PH at RHC (mean RHC mPAP 44.4 mmHg). Of those with RHC PH ($n=142$), 92 (65%) had a high probability of PH based on echo assessment, 33 (23%) had intermediate echo probability of PH whilst 17 (12%) had a low echo

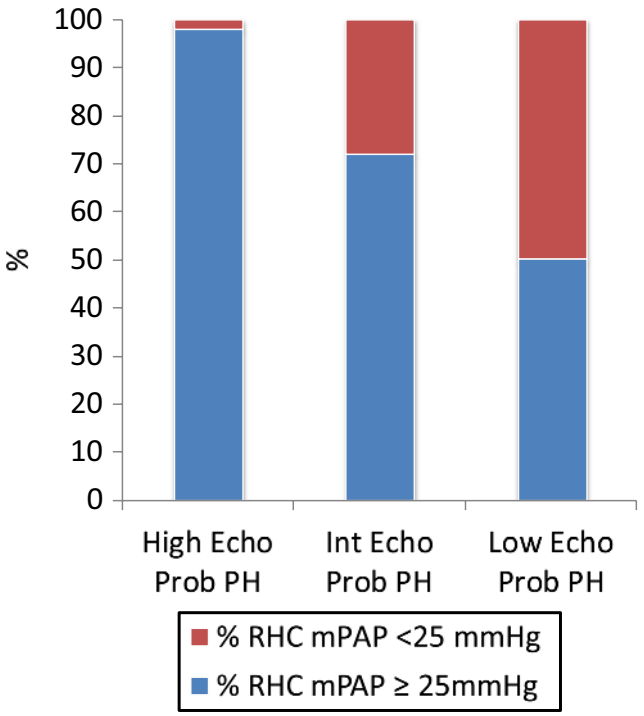

Figure 6
Echo probability of PH associated % with RHC PH.

https://erp.bioscientifica.com
https://doi.org/10.1007/BF03651757

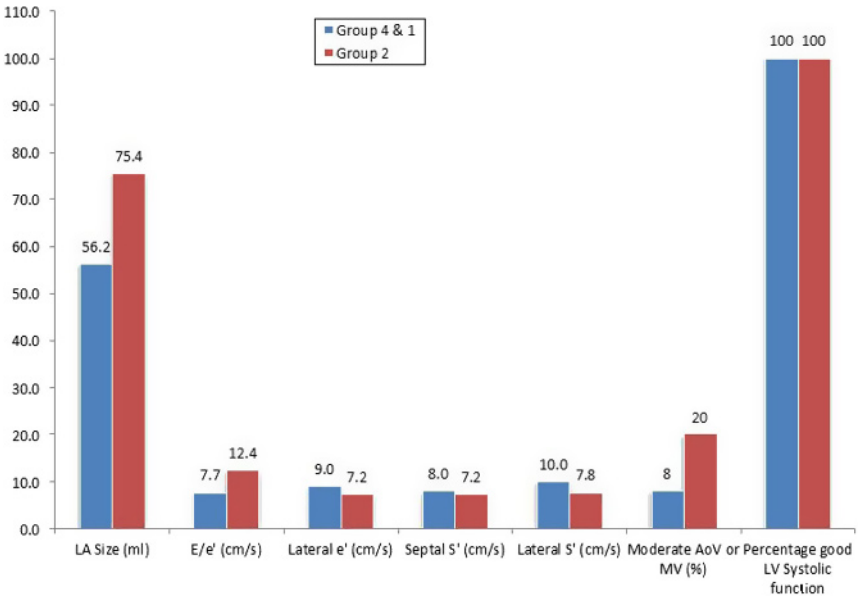

Figure 7
Assessment of left heart parameters in those with low probability of PH on echo.

probability of PH (Figs 5 and 6). Only two patients with a high echo probability of PH (2%) had no RHC PH.

Of those who had low probability of PH on echo but confirmed RHC PH (mean RHC mPAP 28 mmHg, $n=17$), aetiology in 71% was with either thromboembolic disease or connective tissue disease. The remainder (29%) had left heart disease (and this could be distinguished by left heart echo parameters, Fig. 7).

Conclusion

Ninety-eight percent of patients with high echo probability of PH had PH confirmed on RHC. Of those with confirmed RHC PH, 88% had intermediate or high echo probability of PH. The remainder had low echo probability of PH. From this low echo probability group with RHC PH, mean mPAP was mildly elevated. Twenty-nine percent was due to left heart disease and this was evident on echo highlighting the importance of thorough LV echo assessment.

Developing disease-specific echo cut-offs, associating disease pattern/progression with echo or the evaluation of novel echo markers in patients with thromboembolic or connective tissue disease may help to reduce the likelihood of a false negative echo assessment in these groups.

Declaration of interest
The authors declare that there is no conflict of interest that could be perceived as prejudicing the impartiality of this article.

Funding
This work did not receive any specific grant from any funding agency in the public, commercial or not-for-profit sector.

Received in final form 2 September 2020
Accepted 2 September 2020
Accepted Manuscript published online 9 September 2020