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Trainees rated the model as 9.2/10 in allowing needle visualisation, and 9/10 in allowing local anaesthetic spread visualisation. 8 of 10 trainees were able to feel the sensation of passing through fascial layers. All trainees either agreed or strongly agreed that use of the model had improved their confidence in performing an ultrasound-guided fascia-iliaca plane block. Globally, trainees rated the model as 9.5/10 with regards to being a useful training aide.

Conclusions

The model developed is an effective training tool with respect to performing an ultrasound-guided fascia-iliaca block. The model can be made at low cost using commercially available materials and be fully recycled following use.

Ethics approval was not required for this study.

Methods

After institutional ethics approval (PG DISSEMINATION/02/2019/70) and registration in CTRI (CTRI/2019/05/019380), 22 residents were enrolled. All received teaching material and hands on training sessions related to SSBST. Resident scanning sessions were organised on pre-approved volunteers. The performance of the candidates were assessed by two consultants, using a SSBST proficiency scoring card (Figure 1). Residents periodically repeated sessions till they attained a proficiency score >90% on 3 consecutive scanning or maximum of 20 scans whichever was earlier.

Results

Nineteen residents completed the study, of which 13 (68%) reached 90% proficiency with a median number of 7 scanning sessions (IQR 6 – 9) (Figure 2). Learning curves for individual element identification showed C5,6,7 ventral rami, upper and middle trunk were easily learnt when compared to the C8, T1 ventral rami and inferior trunk (Figure 3). Overall, the number of scanning sessions required to attain cognitive skills were lesser 4 (2–6) when compared to the psychomotor skills 6 (IQR 4–8 ; P=0.002).

Abstract B22 Figure 1

Abstract B22 Figure 2

Abstract B21 Figure 1

Abstract B21 Figure 2

B22

LEARNING CURVE FOR IDENTIFICATION OF INDIVIDUAL BRACHIAL PLEXUS ELEMENTS ABOVE THE CLAVICLE USING A SYSTEMATIC SIGN-BASED SCANNING TECHNIQUE

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Background and Aims

Identification of individual brachial plexus elements enables anaesthesiologists to perform site specific regional anaesthesia with low local anaesthetic volume and minimal complications. This study explored the learning curves of anaesthesiology residents for identification of individual brachial plexus elements above the clavicle using a systematic sign-based scanning technique (SSBST).

Results

Nineteen residents completed the study, of which 13 (68%) reached 90% proficiency with a median number of 7 scanning sessions (IQR 6 – 9) (Figure 2). Learning curves for individual element identification showed C5,6,7 ventral rami, upper and middle trunk were easily learnt when compared to the C8, T1 ventral rami and inferior trunk (Figure 3). Overall, the number of scanning sessions required to attain cognitive skills were lesser 4 (2–6) when compared to the psychomotor skills 6 (IQR 4–8 ; P=0.002).
Abstract B22 Figure 3

Conclusions Anaesthesiology residents required 7 scanning sessions to identify individual brachial plexus elements above the clavicle using SSBST. Identification of C8, T1 ventral rami and inferior trunk pose significant challenge in overall learning curve.

Abstract B23 Figure 1

A TRAINEE LED PEER TO PEER REGIONAL ANAESTHESIA COURSE: BRIDGING THE GAP BETWEEN SEEING AND DOING

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Background and Aims Opportunities to learn ultrasound guided regional anaesthesia can be sporadic. ‘One off’ opportunities trainees may feel like they ‘understand’ or ‘remember’ however modern educational theory would call this superficial learning, which rarely correlates with competency and is quickly forgotten. If learning is sporadic, on a superficial level and forgotten it is implausible to expect trainees to become competent.

Our peer-to-peer course required trainees to create, evaluate and analyse sonographic images. This would allow for learning on a deeper level as per Blooms taxonomy of learning outcomes in the hope of bridging the gap between ‘seeing’ and ‘doing’ ultrasound guided regional anaesthesia. We report feedback and an assessment of feasibility.

Methods Weekly sessions were taught by a consultant who regularly practices ultrasound guided regional anaesthesia. After this trainees were nominated to do further scans at a different time and share the ultrasound images on a teaching WhatsApp group. Other trainees would then annotate and label these scans. We reviewed the feasibility and acceptability of this training course using weekly questionnaire feedback.

Results Questionnaire completion rates were approximately 75%. Feedback showed trainees were more confident and scanning in their own time followed by labelling and discussing other peoples scans reinforced knowledge.

Abstract B23 Figure 2

Labelled and non labelled supraclavicular scans

Conclusions The feedback demonstrates satisfaction and feasibility in the course structure. Equally important we demonstrate deeper learning through creation, evaluation and analysis of sonographic images. We suggest this is an effective way of delivering a sono-anatomy course and helps bridge the gap between seeing and doing.