

3) Chicken breast performed moderately in all of the categories assessed, however due its limited size we found it unsuitable.

The teaching session was very well received by the candidates.

**Conclusions** Pork belly provides an effect tissue medium for practicing US guided venous access and needling.

**B408 INTERMEDIATE CERVICAL PLEXUS BLOCK FOR POSTOPERATIVE PAIN CONTROL IN THYROID SURGERY: A PRODROMAL RANDOMIZED STUDY OF DIAPHRAGMATIC FUNCTION EVALUATION AND BLOCK EFFECTIVENESS**

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**Background and Aims** The cervical plexus block (CPB) is used in a variety of head and neck surgeries providing efficient anesthesia and analgesia. It can be divided into superficial (above superficial fascia of the neck), intermediate (between superficial and prevertebral fascia) and deep (below prevertebral fascia) CPB. We studied the postoperative analgesic efficacy of intermediate CPB on thyroid surgery and the degree of phrenic nerve blockade caused by the block.

**Methods** 14 patients scheduled for thyroid surgery were randomized into two groups of 7; Group A received bilateral intermediate CPB using 15 ml ropivacaine 0.375% along with paracetamol and dexketoprofen upon patient's demand, for postoperative analgesia. Group B received the same painkillers without CPB. The primary outcome of our study was diaphragmatic excursion on the right side, preoperatively and immediately postoperatively, measured ultrasonographically by a POCUS experienced anesthesiologist during forced inspiration. We additionally measured diaphragmatic thickening fraction as long as time for first analgesic demand and pain scores (NRS) in 6 and 24 hours postoperatively.

**Results** Postoperatively the diaphragmatic excursion decreased in both groups, but it decreased more in Group A ( $46 \pm 6$ mm vs  $48 \pm 5$ mm), nevertheless statistically and clinically insignificantly ( $p > 0.05$ ). Thickening fraction was  $> 25\%$  in all instances. In group A, we observed longer time for first analgesic demand postoperatively and lower pain scores in all instances.

**Conclusions** Intermediate CPB can be an effective and safe method for postoperative pain control in thyroid surgery. Diaphragmatic dysfunction due to the block seems to be insignificant, but larger studies are needed to confirm this observation.

**B409 COMPARISON OF FASTING GASTRIC VOLUME USING ULTRASOUND IN DIABETIC AND NON-DIABETIC OLDER ADULTS UNDERGOING STAGED-BILATERAL TOTAL KNEE ARTHROPLASTY: A PROSPECTIVE NON-RANDOMIZED COMPARATIVE STUDY**

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**Background and Aims** This study was aimed to evaluate and compare the preoperative fasting gastric volume (GV) in diabetic and non-diabetic older adults undergoing staged bilateral total knee arthroplasty (TKA) using ultrasonography.

**Methods** This was a prospective non-randomized and comparative study of 38 older adults aged over 65 years who were scheduled for staged bilateral TKA. All participants were fasted from midnight. Patients diagnosed with diabetes mellitus (DM group,  $n=19$ ) or not (non-DM group,  $n=19$ ) were matched for age, sex, and body mass index. The primary outcome was residual GV assessed by ultrasonography.

**Results** The GV was significantly different between the DM group [75.1 (43.2) mL] and the non-DM group [35.9 (25.9) mL] at second TKA ( $P=0.002$ ), but not at first one ( $P=0.096$ ). In the comparison of GV within the group, GV was larger in the second TKA compared with first operation, in both DM ( $P<0.001$ ) and non-DM ( $P=0.018$ ) groups. The mean difference of GV amount within two sequential TKAs was greater in the DM group (42.5 mL; 95% confidence interval [CI], 26.6 to 58.5) than non-DM group (20.0 mL; 95% CI, 3.8 to 36.2;  $P=0.044$ ).

**Conclusions** The preoperative fasting GV measured at the second TKA was larger in diabetic older adults than in non-diabetic ones. Furthermore, the residual GV was different according to the stage of TKA, showing greater volume in second than first operation, in both diabetic and non-diabetic group. Hence, a caution is required for preoperative fasting practice in the elderly undergoing staged bilateral TKA, especially in diabetic patients undergoing second stage operation.

**B410 POINT-OF-CARE GASTRIC ULTRASOUND: A TRAINING OPPORTUNITY TO ENHANCE DECISION-MAKING AND IMPROVE PATIENT SAFETY?**

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**Background and Aims** Aspiration accounts for 50% of anaesthesia related deaths. Inadequate pre-operative risk assessment is one of the contributing factors<sup>1</sup>. Point-of-care gastric ultrasound (POC-USG) is a novel but valid diagnostic tool to quantify gastric volume (GV) and ascertain risk of aspiration<sup>2</sup>.

The aims of our project were to determine, in fasted patients undergoing emergency surgery:

- if quantitative and qualitative methods of assessment of gastric volume (GV) correlate with each other
- if GV assessment identifies at high risk of aspiration, and
- if higher risk of aspiration was identified, whether this changed the plan for airway management

**Methods** Patients booked onto the emergency list were prospectively scanned using low frequency 1–5MHz curvilinear transducer. GV was estimated by inputting cross sectional area of the antrum in the right lateral decubitus position (RLD-CSA) into a validated model<sup>2</sup>. This was compared to acceptable GV determined by the patient's weight (low risk for aspiration =  $< 1.5 \text{ ml kg}^{-1}$ ; high risk  $> 1.5 \text{ ml kg}^{-1}$ )<sup>2</sup>. Qualitative assessment was categorised as grade 0–2 based on antrum appearance. Risk was communicated to the anaesthetist and the final airway plan recorded.

**Results** There was 100% ( $n=15$ ) correlation between qualitative and quantitative methods. 3 were identified at high risk