OP063 ANATOMIC EVALUATION TO COMPARE THE DYE SPREAD WITH ULTRASOUND-GUIDED PERICAPSULAR NERVE GROUP (PENG) INJECTION WITH OR WITHOUT AN ADDITIONAL SUPRAINGUINAL FASCIA ILIACA (SIFI) INJECTION IN SOFT EMBALMED CADAVERS

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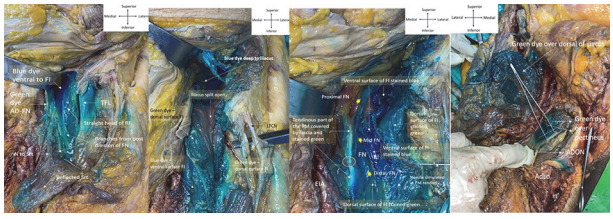
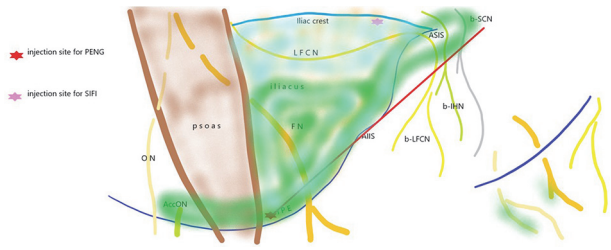
Background and Aims Novel interfascial plane blocks like PEricapsular Nerve Group(PENG) and SupraInguinal Fascia Iliaca (SIFI) blocks have shown promise for hip fracture pain but the extent of local anaesthetic spread and the nerves involved is not clear. We compared the nerves stained and flow distribution of the dye injected in the PENG block with and without SIFI block.

Methods Twenty-four designated dye injections were performed in eight soft-embalmed elderly cadavers. Using a linear probe, ultrasound-guided PENG block procedure was followed to inject 20ml green ink bilaterally and SIFI block technique was performed to deposit 30ml methylene blue dye on the right side. The cadavers were dissected 24 h later to assess extent of dye spread and nerves stained.

Results An extensive spread and a mix of green and blue dyes were seen both above and below the iliacus muscle on right side. The proximal femoral (blue), subcostal and iliohypogastric, accessory Obturator(ON), anterior ON, distal femoral, and femoral cutaneous(green) were stained. On the left side, accessory ON, FCN, the anterior ON and femoral nerves were stained in majority, while subcostal and iliohypogastric nerves were stained in 3/8 cadavers. Main trunk of ON was not stained on either side. (figure 1 and 2)



Abstract OP063 Figure 1 Cadaveric dissection findings



Abstract OP063 Figure 2 Dye distribution pattern

Conclusions The study findings indicate that combined PENG + SIFI injections lead to an extensive cranio-caudal and longitudinal spread above and below iliacus muscle involving most nerves innervating hip region. We perceive that to have a superior clinical outcome probably the combination of these two injections would be optimum.

OP064 THE ROLE OF GASTRIC ULTRASOUND IN ANESTHESIA FOR EMERGENCY SURGERY: A REVIEW AND CLINICAL GUIDANCE

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Background and Aims The timing and technique of anesthesia are challenging in patients with a history of recent food intake. The presence of gastric content increases the risk of aspiration, potentially resulting in acute lung injury, pneumonia or death. Delayed gastric emptying complicates the estimation of aspiration risk. Surprisingly, there are no fasting guidelines for emergency surgery. Point-of-care gastric ultrasound is a time-efficient, cost-efficient, and accurate bedside tool to estimate residual gastric content and guide decision-making in airway management and timing of general anesthesia. We reviewed the prevailing concepts of ultrasound-guided gastric content assessment for emergency surgery.

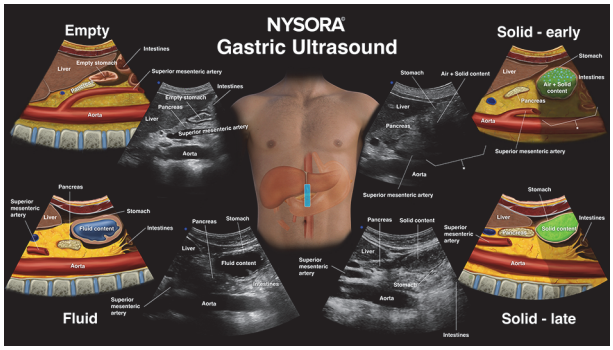
Methods Medline and Embase databases were searched for studies using ultrasound for the evaluation of gastric content in adult patients scheduled for emergency surgery.

Results Five prospective observational studies representing 793 patients showed an incidence of a 'full stomach' between 18 and 56% in the emergency surgery population at the time of induction. Risk factors for a full stomach in emergency surgery were abdominal or gynecological/obstetric surgery, high body mass index and morphine consumption. No correlation between preoperative fasting time and the presence of a full/empty stomach was shown. No deaths due to aspiration were reported.

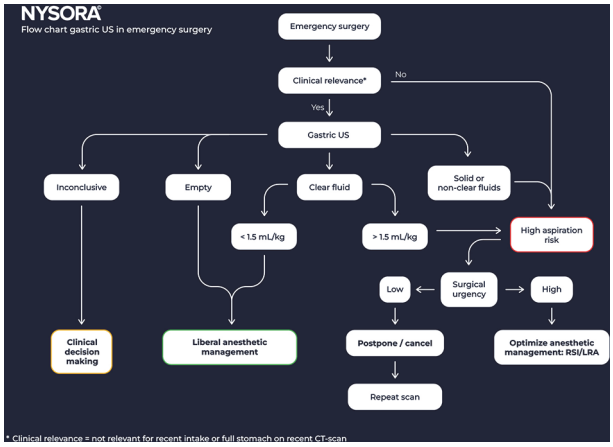
Abstract OP064 Table 1

Authors	Gastric volume threshold	Patient examination position	Study population (n)	Type(s) of surgery	Full stomach on gastric US (in %)	Median and [IQR] fasting times (hours)	Correlation between fasting times and gastric content
Delamarre et al. [24]	>1.5 ml/kg	RLD	196	Various	27	Liquids: 11.4 [8-16] Solids: 15.6 [11-20.2]	No
Bouvet et al. [25]	>0.8 ml/kg	45° semi-recumbent, RLD	250	Various	56	18 [11–24]	No
Dupont et al. [26]	>0.8 ml/kg	45° semi-recumbent	263	Various	35	16 [IQR not available, all patients fasted >6h]	No
Okada et al. [17]	>1.5 ml/kg	Supine	39	Abdominal	51	Liquids: 6 [5–7] Solids: 16 [10.3–23.5]	No
Hasanin et al. [27]	>1.5 ml/kg	45° semi-recumbent, RLD	45	Appendectomy	18*	6h and 8h	Unclear**

RLD,right lateral decubitus position.
* Full stomach after 6 h fasting
** A correlation was found between fasting time and average gastric volume as well as between fasting time and cross-sectional area of the antrum. No correlation was found between fasting time and incidence of gastric volume >1.5 ml/kg.



Abstract OP064 Figure 1 Gastric ultrasound



Abstract OP064 Figure 2 Medical decision-making flowchart

Conclusions The presence of preoperative gastric content in the emergency surgery is high and the clinical estimation is unreliable. Our findings demonstrated that gastric ultrasound is a valuable tool to evaluate the presence of gastric content. Moreover, a flowchart for medical decision-making using gastric ultrasound for emergency surgery patients was developed to assist in clinical decision-making.

OP065 ASSESSING HYPOTENSION RISK THROUGH POINT-OF-CARE ULTRASOUND (POCUS): EVALUATING INFERIOR CAVA AND ILIAC VEIN COLLAPSIBILITY BEFORE SPINAL ANESTHESIA IN ELDERLY PATIENTS WITH SURGICAL HIP FRACTURES

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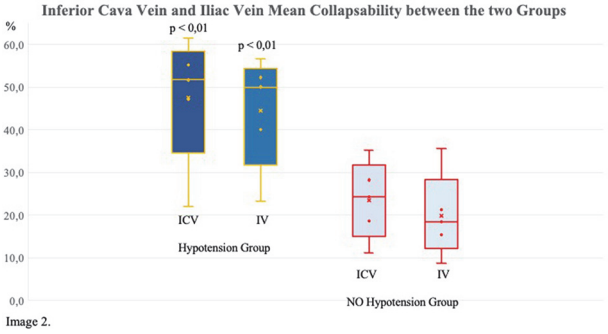
Background and Aims Hip fractures(HF) in the elderly over 70years old have significant impacts on quality life. Spinal anesthesia(SA) is the main approach for HF surgical synthesis, but its mayor complication is hypotension. The aim of this study is to determine if Iliac Vein(IV) collapsibility predicts hypotension comparing Inferior Cava Vein(ICV), using PoCUS which provides rapid diagnostic information and real-time monitoring at the bedside.

Methods Patients with HF over 70years with BMI≤30 and ASA II-III were enrolled. Internal diameters of IVC and IV were measured at the end of expiration and inspiration in the same respiratory cycle. No fluid preload was infused to any patient before SA. Standard noninvasive monitoring including NIBP was recorded. SA was performed at L3-L4 level injecting Levobupivacaine 0.5%(12-15mg) as local anesthetic. Hypotension was defined as SBP<90mmHg, MAP<60mmHg, or 30% reduction in baseline SBP. Hypotension was treated with vasopressors or fluids according to anesthesiologist.

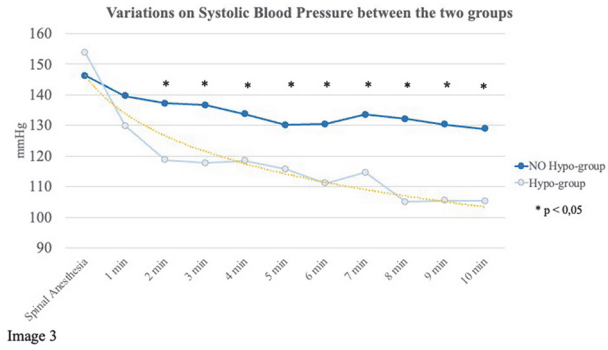
Abstract OP065 Table 1

VARIABLE	HYPOTENSION	NO HYPOTENSION	p-value
Age, *years*	81,2±9,3	80,8±8,0	0,69
Sex M:F, n	0:23	8:24	0,027 *
BMI, *Kg/m²*	25,8±3,8	24,7±3,6	0,39
ASA II:III, *n*	17:6	25:7	0,71
Use of antihypertensives, *n*	16 (29%)	22 (40%)	0,94
Type of antihypertensive			
Beta-blocker	4 (7,3 %)	7 (12,7 %)	0,92
CCB	2 (3,7 %)	3 (5,5 %)	0,92
ACE-inihibitors	5 (9 %)	4 (7,3 %)	0,92
Others	5 (9 %)	8 (14,5 %)	0,92
Basal MBP, *mmHg*	93,0 ± 13,1	93,3± 13,3	0,91
Basal HR, *bpm*	84,6±13,4	82,4±12,9	0,68

Table 1



Abstract OP065 Figure 1



Abstract OP065 Figure 2