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A001 Preanesthetic Ultrasonographic Gastric Volume Assessment in Patients Undergoing Elective Intracranial Surgery

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Background: To assess the correlation between gastric volume and duration of fasting in patient undergoing intracranial elective surgery by measuring the gastric antral cross-sectional area and calculating gastric volume using ultrasound.

Materials and Methods: For this prospective, observational study, approval from institution ethics committee was taken. Fifty-two patients undergoing surgery for elective intracranial pathology were examined preoperatively for assessment of gastric antrum and gastric volume in right lateral decubitus position using ultrasound. For correlations between study variables, Spearman's correlation, and receiver operating characteristic curve (ROC) analysis was used.

Results: In spite of adequate fasting of 8 hours, 19 patients out of 52 had gastric volume above threshold of 0.8 mL/kg ($p = 0.012$). ROC for cut-off duration of fasting period was 11 hour showing high sensitivity. With increase in fasting hours, gastric volume reduced with correlation coefficient of -0.45 .

Conclusions: Preoperative ultrasonographic gastric volume assessment is a point of care tool for aspiration risk assessment. For patients with increased ICP, fasting period of 8 hours may not be sufficient due to autonomic dysfunction causing gastric paresis, requiring longer fasting hours to reduce the risk of aspiration.

A002 Comparison of Propofol and Ketofol on Transcranial Motor Evoked Potentials (TcMEPs) in Patients Undergoing Thoracolumbar Surgery

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Background: To compare effect of propofol and ketofol infusion (ketamine:propofol 1:4 admixture) on TcMEPs, hemodynamic parameters and muscle power at discharge.

Materials and Methods: Thirty-eight adult ASA I and II patients were randomly allocated into two groups (X and Y) in 1:1 ratio. Amplitude and latency were recorded bilaterally from abductor pollicis brevis (APB) and abductor hallucis (AH) muscles. Baseline recordings of TcMEPs in both groups were recorded under propofol infusion. Thereafter, in group X, patients received propofol and fentanyl 1 $\mu\text{g}/\text{kg}/\text{h}$, and in group Y, patients received ketofol and fentanyl 1 $\mu\text{g}/\text{kg}/\text{h}$. In both groups, bispectral index (BIS) was maintained between 40 and 60. The amplitude and latency were recorded thereafter at four time points: T1 (30 minutes), T2 (60 minutes), T3 (90 minutes), and T4 (120 minutes).

Results: In group X, propofol did not result in significant change in amplitude and latency in any muscle. In group Y, ketofol resulted in significant increase in amplitude at all the time points in bilateral APB muscles and 60, 90, and 120 minutes in left AH muscle without change in latency. When the two groups were compared, ketofol resulted in statistically higher amplitudes at 60, 90, and 120 minutes in (L) APB, at 30, 60, 90, and 120 minutes in (R) APB, and at 120 minutes in both AH muscles; latency being comparable. Blood pressures were lower whereas fluid and vasopressor requirement were higher in group X. Muscle power was comparable between the two groups.

Conclusions: Ketofol increases amplitude probably secondary to maintenance of hemodynamics.

A003 Anesthetic Management of Encephaloduroarteriosynangiosis (EDAS) for Moyamoya Disease: A Retrospective Study

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Background: Moyamoya Disease (MMD) is a chronic cerebrovascular disease with progressive stenosis/occlusion of terminal portions of ICA and development of cerebral ischemia. Encephaloduroarteriosynangiosis (EDAS) is performed to improve the collaterals. There are many risk factors for development of perioperative stroke which were reviewed in this study.