PO14

SONOPATOLOGIA E BLOQUEIO DO PLEXO CERVICAL SUPERFICIAL: *"SAVED" BY THE ULTRASOUND!*

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A segurança que as técnicas regionais assumem na abordagem dos doentes mais desafiantes para o anestesiologista é um facto, em particular casos de via aérea difícil (VAD), instabilidade hemodinâmica ou respiratória. Os autores apresentam um caso clínico em que a ecografia permitiu caracterizar lesão cervical previamente ao procedimento, com identificação de sinais de potencial VAD e alteração do plano anestésico inicial (anestesia geral) para a realização eficaz e segura de bloqueio ecoguiadodo plexo cervical superficial à esquerda (BEPCSE), em doente proposto para drenagem de abcesso cervical.

Masculino, 62 anos, ASA IV, antecedentes de VIH e hepatite B, hipertensão arterial, ex-fumador, neoplasia pulmonar metastática e, à data do procedimento, infeção respiratória ativa, proposto para drenagem urgente de abcesso cervical volumoso,associadoa destruição lítica vertebral C3 (imagem 1 e 2). Sob monitorização standard da ASA, foi efetuadoscanda região cervical,com caracterização da extensão da lesão e constatação de desvio da traqueia com provável VAD. Administrado midazolam 1mg, ev e fentanil 50µg, ev e realizado BEPCSE,com lidocaína 2% (60mg) e ropivacaína 0,5% (15mg). Todo o procedimento decorreu sem intercorrências.

A utilização de um meio de imagem em tempo real como a ecografia, além de assumir um papel preponderante na realização das técnicas de bloqueios de nervos periféricos, pode auxiliar na caracterização das lesões e, inclusive alterar a técnica anestésica inicialmente proposta, assim como a abordagem cirúrgica. Além da maior rapidez e eficácia das técnicas, a ecografia permite aumentar a segurança das mesmas, identificando variações anatómicas, minimizando o risco da realização de intervenções invasivas"às cegas" e avaliando possíveis alterações anatómicas.[1] O bloqueio do PCS é um bloqueio simples,com extensão aos planos cervicais profundos justificada pela porosidade da fáscia cervical profunda, consistindonum bloqueiodenso e eficaz para abordagens cirúrgicas cervicais superficiais e profundas.[2] O caso clínico descrito sublinha os diferentes papéis que a ecografia pode assumir como instrumento de caracterização sonopatológica das lesões, influenciar a decisão da abordagem anestésica ideal para o doente, além das vantagens já amplamente conhecidas no que concerne à rapidez, eficácia e segurança na realização das técnicas.

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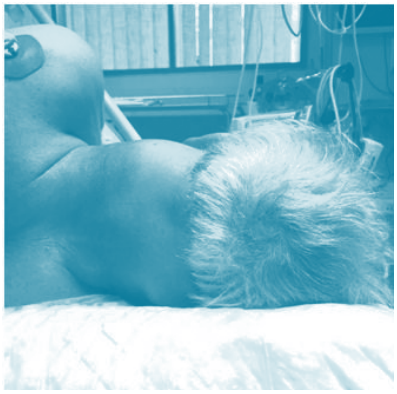

Fig 1:

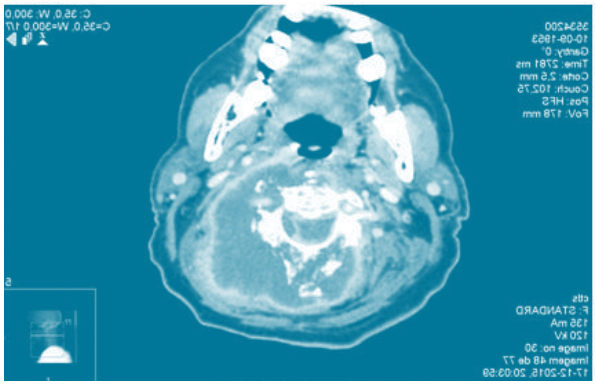

Fig 1:

PO23

PREDICTING THE DISTANCE SKIN TO MID-THORACIC EPIDURAL SPACE (DSMTES) USING AN EMPIRICAL FORMULA DERIVED FROM BODY WEIGHT: THE CORRELATION BETWEEN ESTIMATED AND ACTUAL DEPTH TO THE EPIDURAL SPACE.

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In recent times, the use of imaging techniques (ultrasound, CT scan, MRI) to estimate the depth of the epidural space has gained many fans and popularity, with good correlation coefficients between estimated distance and the actual distance (0:56 to 0.81) .

However the regular use of these techniques is time / money consuming, requires a long learning curve by Anesthesiologists and are not always available preoperatively.

In a paper presented by the same authors as e-poster in ESRA 2014, we found a statistically significant relationship between body weight and DSMTES, which allowed us to reach an empirical equation, as follow:

DSMTES = 4,3 + 0.044*weight

Our aim is to demonstrate that by using this equation we can easily

estimate the DSMTES with good correlation with the real distance.

We selected randomly 20 patients who were not part of the initial study, and had an epidural catheter between T7-T8 and T4-T5; by consulting Anesthesia records, we made the correlation between the actual and estimated distance.

Pearson correlation coefficient was used to evaluate the association between real and estimated depth values. Bland-Altman analysis was used to assess the limits of agreement between the measurements.

The mean body weight was of 65.4kg (standard deviation 14.49 kg).

A significant association was found between real and estimated depth values, with a good correlation coefficient (r=0.75, p<0.001).

The Bland-Altman analysis showed the bias of -0.3 and limits of agreement of -2.24 cm and +1.57 cm.

We suggest that the DSMTES can be estimated with the empirical formula based on the body weight, with the same degree of confidence deriving from the use of imaging techniques, but without its difficulties and costs.

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PO26

OS ANESTESIOLOGISTAS E O SEU SONO

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INTRODUÇÃO

Dormir é uma das necessidades fisiológicas mais básicas que o Ser Humano apresenta, sendo necessário para a manutenção de um adequado relacionamento com os outros, estado de vigília e alerta, capacidade de execução de tarefas, entre muitas outras tarefas. Na classe médica, vários são os estudos que demonstram uma diminuição da capacidade de resposta, cognição, atenção e capacidade de consolidação de novas aprendizagens com a privação de sono. Com este estudo pretendemos analisar a sonolência diurna nos Anestesiologistas Portugueses.

METODOLOGIA

Estudo observacional, descritivo e transversal, realizado entre Novembro e Dezembro de 2015, através de um questionário online enviado por correio electrónico, tendo como população-alvo os Anestesiologistas a trabalhar em Portugal. Foram incluídos Internos da Formação Específica e Especialistas em Anestesiologia, com um horário de trabalho de pelo menos 35 horas semanais, tendo sido excluídos aqueles com uma atividade exclusiva em Unidades de Cuidados Intensivos ou em Serviço de Urgência ou com patologias do sono diagnosticadas previamente. Para além da colheita de dados sócio-demográficos, foi aplicado o questionário Epworth Sleepiness Scale (ESS), adaptado, versão Portuguesa. Para o estudo de associação de variáveis o nível de significância foi de 5%

RESULTADOS

Foram aceites 256 respostas, na maioria de Especialistas (66%), do género feminino (75,4%), com uma média de idades de 39,5 anos. 41% da amostra apresentava Sonolência Diurna Excessiva – SDE (ESS >10). Verificou-se uma relação entre a SDE e o número de horas de sono, sendo que aqueles que dormiam menos de 7 h/dia, apresentavam mais SDE (p=0,006). Demonstrou-se igualmente uma maior incidência de SDE naqueles que fazem mais de 4 turnos de 24h mensais, comparativamente com aqueles que fazem menos (n=188, p=0,04). À pergunta "Alguma vez sentiu que o seu número de horas de sono poderia comprometer a segurança do doente?" 38,3% da amostra respondeu afirmativamente. Não se objectivaram diferenças estatisticamente significativas entre Especialistas e Internos ou entre diferentes regiões do País.

DISCUSSÃO E CONCLUSÕES

A incidência de SDE na nossa amostra foi de 41 %, próxima da descrita na literatura internacional nesta população. Verificou-se uma maior incidência de SDE naqueles que dormem menos de 7h por dia e naqueles que fazem mais de 4 turnos de 24h mensais.

A sonolência diurna poderá resultar em perturbações a curto, médio e longo prazo na saúde dos Anestesiologistas e consequentemente na capacidade e qualidade da assistência prestada.

REFERÊNCIAS: Sleep 1991; 14: 540–45. | J Clin Sleep Med. 2011; 7: 512–522 | Chest 2009; 136: 1389 -96 | Eur J Anaesthesiol. 2015; 32:132–137

PO28

HIGH VARIABILITY IN PROPOFOL REQUIREMENTS FOR ANAESTHESIA INDUCTION

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The importance of personalized medicine is becoming increasingly recognized. Many factors affect the individual patients' response variability. For most drugs many factors affect patient's needs: gender,[1] age,[2] body composition. But, other factors also contribute to inter-patient variability. For propofol, it is important to assess the magnitude of individual variability in dose requirements for induction of anesthesia. We assessed individual variability in propofol requirements for loss of consciousness (LOC) and BIS.

126 adult patients undergoing neurosurgical procedures (IRB approval) received 1 % propofol at 3.3ml/kg/h for induction until LOC, identified as an OAAS score of 0.

Propofol predicted cerebral concentrations at the precise moment of LOC were noted (Schnider's Pk). Two groups of patients were studied regarding the use of opioid in induction: G1 (n=66) induction started with propofol, followed only after LOC by remifentanil; G2 (n=60) induction started with remifentanil by TCI (target Ce of 2.5ng/ml) followed by propofol. Propofol and BIS data were recorded every 5s. Statistics used Levenetest, t-test and Pearson correlation. Data are mean±SD.

There were no significant differences between the groups with respect to demographic data.

Table 1 presents Propofol and BIS data. The variance in propofol Ce did not differ, but the variance in BIS at LOC was significantly different between groups (p=0.003), Figure 1. The use of remifentanil was positively correlated with BIS at LOC (R=0.415, p<0.01) and inversely correlated with propofol Ce at LOC (R=-0.444, p<0.01).

We show a wide variability in individual patient requirements for propofol to induce LOC. This variability seems irrespective of whether induction begins with remifentanil or propofol and may be considered clinically relevant, since it can represent more than a 40 % difference from the average patient. This variability was observed in concentrations that were calculated taking into account the age, gender, weight and height; so, variables other than those should account for this significant inter-individual variability. A difference in variability was observed for BIS at LOC between groups, which may be an effect of remifentanil. When remifentanil was present BIS at LOC was higher, in agreement with a possible arousal effect of opioids on the EEG. Further research should be try to identify physiologic variables that contribute to the observed inter-individual variability.

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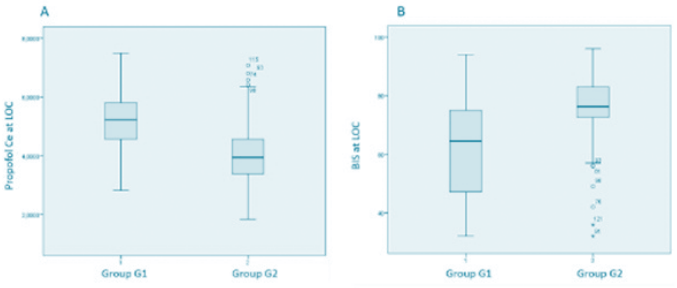

Fig. 1 Data distribution for Propofol Ce (ug/ml) at LOC and BIS at LOC in groups G1 and G2

Table 1 Data at Loss of Consciousness (LOC) for group G1 and group G2

	Group G1	Group G2	t-test (p-value)
Propofol Ce at LOC (ug/ml)	5.14±1.01	4.07±1.17	<0.0001
	Minimum: 2.83 Maximum: 7.49 Range: 4.66 Standard error from mean: 0.12 Maximum difference from mean: 45.72%	Minimum: 1.84 Maximum: 7.08 Range: 5.23 Standard error from mean: 0.15 Maximum difference from mean: 73.93%	
BIS at LOC	61.81±16.06	75.1±13.23	0.000001
	Minimum: 32 Maximum: 94 Range: 62 Standard error from mean : 1.98 Maximum difference from mean: 52.08%	Minimum: 32 Maximum: 96 Range: 64 Standard error from mean: 1.71 Maximum difference from mean: 57.39%	

PO62

RECURARIZATION AFTER A PROLONGED INFUSION OF ROCURONIUM – CASE REPORT

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Monitoring of neuromuscular blockade is crucial when muscle relaxants are used and avoid possible complications such as residual neuromuscular blockade or recurarization. We know that recurarization is possible after Sugammadex administration but only a few cases have been documented clinically.82 years old man, with a subocclusive sigmoid tumor, proposed for elective laparoscopic sigmoidectomy, ASA III (pacemaker carrier, type 2 diabetes mellitus, grade 1 obesity, weight 85kg, dyslipidemia, anxiety, moderate drinking habits with mild elevation of transaminases). Standard ASA monitoring plus BIS, arterial line, TOF-Watch, diuresis, esophageal temperature and serial arterial blood gas analysis. Induction was achieved with a rapid sequence technique, 200ug Fentanyl, 160mg Propofol, 100mg Succinylcholine. Maintenance of anesthesia: Sevoflurane, Remifentanil and Rocuronium: 40mg after recovery of neuromuscular blockade; 20mg 30 minutes later after 2 responses on TOFratio and then Rocuronium infusion was started and titrated. Surgery was converted to laparotomy 7 hours after starting. The total dose of Rocuronium was 460mg in 9 hours corresponding to an infusion of 0.6mg/kg/h. The Rocuronium infusion was stopped 30

minutes before the end of surgery. 45 minutes later there were no response on TOF, DBS or PTC. TOF-Watch was checked and was not working. There were no more TOF-watch available. Patient went into spontaneous ventilation so we assume that he could not have deep neuromuscular blockade. Sugammadex 2,35mg/kg was administered, 3 minutes later patient improved the respiratory pattern and opened his eyes. Patient was extubated based on clinical criteria. He was transferred to PACU conscious, oriented, responding to simple commands. On admission the pulse oximetry was 97 % and respiratory rate 14cpm. Sudden desaturation was observed 30 minutes later and patient became unresponsive with abnormal respiratory pattern. Recurarization was suspected, patient was ventilated, 200 mg Sugammadex were administered and 2 minutes later patient was responsive, breathing normally, without signs of respiratory effort and pulse oximetry raised up.Of the possible causes of prolonged neuromuscular blockade, our patient had: liver disease, halogenated and local anesthetics. Rocuronium infusions higher than 0.6mg/kg/h are not recommended. The use of Rocuronium infusions requires continuous monitoring of neuromuscular blockade. The clinical signs are not enough to guarantee an effective neuromuscular reversal. Greater vigilance is required in PACU because of the increased possibility of residual curarization or recurarization. Maybe Sugammadex dose higher than 2 mg/Kg must be used after prolonged Rocuronium infusions, but there are no studies. We suggest that more studies are necessary to determine Sugammadex dose that guarantee Rocuronium reversal after prolonged infusions.

PO63

EVALUATION OF THE ANALGESIC NOCICEPTION INDEX® (ANI) TO ASSES THE NOCICEPTION AND ANTI-COCICEPTION BALANCE IN ANESTHETIZED PATIENTS WITH PROPOFOL AND REMIFENTANIL DURING NEUROSURGERIES WITH CRANIOTOMY – PRELIMINARY RESULTS

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The ANI monitor (Metrodoloris, France) aims at objectively assessing the nociceptive/anti-nociceptive balance, namely in unconscious patients.[1] Based on the analysis of heart-rate variability it generates an index from 0-100 with 0 reflecting a very weak and 100 a strong parasympathetic tone.[2] The goal of this study was to evaluate the ANI response to a single noxious stimulus, a tetanic stimulation, and correlate it with different concentrations of remifentanil in anesthetized patients.

With IRB approval and informed consent, ASA I-III patients to undergo anesthesia for craniotomy were enrolled. TCI of propofol and remifentanil was used, titrated to keep a BIS index of 40 to 60 and hemodynamic stability. The experimental protocol was performed between tracheal intubation and skin incision, during which remifentanil predicted cerebral concentration (Ce) was increased step-by-step to 0.5, 1.5, 3.0, 5 and 7 ng.ml-1, followed, if possible, by a stepwise decrease along the same Ce steps. At each Ce, and following a steady state of 5 minutes, a standardized noxious stimulus was applied (tetanic stimulation of the ulnar nerve - 5s, 50Hz, 70mA) and an event mark was recorded on the ANI monitor. The ANI indexes were analyzed post-hoc to obtain, for each tetanic stimulus, the average ANI in the 60 seconds before the stimulus, the average ANI in the 120 seconds following the stimulus and the lowest and highest ANI in the same 120 seconds period. Statistics used Shapiro-Wilk test (to assess normality), paired sample t-test (to assess ANI change after the stimulus) and Pearson correlation. Significance was for p<0,05.

Eight patients were studied, generating data for a total of 75 tetanic noxious events. In 54 of these, average ANI decreased after the stimulus and the time to reach the lowest value was 67,8±28 seconds. Overall, the change in average ANI after the stimulus was statistically significant (p=0,02). When considering the remifentanil Ce categories, the ANI changed significantly (p=0,01) only at 1.5 ng.ml-1(Fig1). A significant correlation was observed between remifentanil Ce and the average ANI value after the stimulus (R=0,375 P=0,01). Minimum ANI in the 120 seconds following the stimulus was significantly correlated with the remifentanil Ce (R= 0,396 P<0,001); for the maximum ANI in the same period there was also a significant correlation (R=0,275 P=0,017).

ANI reflected responses to noxious stimulation during propofol--based anesthesia and varying remifentanil concentrations. The wide lag time variation between the stimulus and the minimum ANI value may be a clinical limitation to its use. Other indirect measures such as HR, BP and BIS EMG need to be included in further data analysis to better assess the usefulness of ANI to guide nociception/antinociception balance during anesthesia.

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PO73

THE OBSERVATION OF HYSTERESIS IN THE LOSS AND RECOVERY OF CONSCIOUSNESS INDUCED WITH PROPOFOL SUGGESTS A NEURAL INERTIA IN HUMANS

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The concepts of hysteresis and neural inertia were introduced in relation to the concentrations at which consciousness is lost and regained with anesthetics. Friedman et al. stated that neural inertia was demonstrated in two animal species[1] but not in humans.[2] In a prospective study, we carefully identify the moments of loss and recovery of consciousness (LOC and ROC, respectively) and compared the calculated propofol concentrations at which they occurred to assess hysteresis.Under IRB approval, 29 patients undergoing surgery received fentanyl (3µg/Kg) followed by 1 % propofol at 3.3mL/kg/h until LOC (modified OAAS score

of 0). Propofol, fentanyl and remifentanil effect-site concentration (Ce) were calculated using Schnider's, Shaffer's and Minto's PK models, respectively. At LOC, the amount of propofol given and predicted Ce were noted and the pump (Fresenius Orchestra) was switched to effect-site Target-Controlled Infusion (TCI). Propofol was titrated to a BIS of 40-60. Remifentanil by TCI was started 30 minutes after LOC and titrated during surgery. At the end of surgery it was set at a Ce of 2ng/mL and propofol was stopped. The patient was called every 10 seconds. At eye opening (ROC) propofol Ce was recorded. Dose response curves were generated for propofol Ce at LOC and ROC and hysteresis assessed as done by.[1] Data are mean±SD. Statistics used Spearman's rank correlation coefficient (R).Al LOC, propofol and fentanyl Ce's were 4.3±1.6µg/mL and 3.4±0.5ng/ml and at ROC, propofol Ce was 1.13±0.48µg/mL and remifentanil was 2.0ng/mL. Figure 1 shows the hysteresis curve. Neural inertia was 317.Our dose response curves for propofol predicted concentrations at loss and return of consciousness exhibit hysteresis, similar to that showed in animal species. The opioid concentrations at LOC and ROC were equipotent. Our results may be the first to provide evidence to suggest that neural inertia exists in humans.

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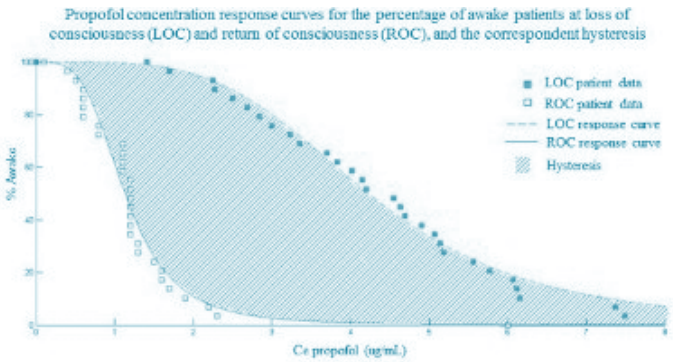

	EC50	95% C.I.	Hill Slope	95% C.I.	Top	95% C.I.	R^2
LOC	4.22	[3.98; 4.46]	-4.06	[-4.98; -3.14]	100	[94.37; 105.6]	0.9871*
ROC	1.14	[1.05; 1.22]	-3.70	[-4.69; -2.70]	100	[91.24; 108.8]	0.9428*

Best fit-parameters for the LOC and ROC generated response curves. *p<0.001.

Fig. 1 -Hysteresis

PO77

DETERMINING THE PREDICTED CEREBRAL CONCENTRATION OF PROPOFOL AT LOSS OF CONSCIOUSNESS WITH THE MARSH OR SCHNIDER PK MODEL, AND USING THAT CONCENTRATION AS THE POST-INDUCTION TARGET, RESULTS IN SIGNIFICANT DECREASES IN BIS AND BLOOD PRESSURE

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*When using TCI for propofol induction of anaesthesia one may use two well established PK models, available in commercial TCI devices, the Marsh model[1] and the Schnider model.[2] However, it has been showed that these models have different PK/PD balance and predicted different concentrations when in non-steady conditions, such as induction.[3] The objective of our study was to compare the BIS and haemodynamic response to the same induction protocol with propofol but using the two different PK/PD models.All patients were submitted to general anesthesia and neurosurgery. Anesthesia started with a remifentanil infusion using a TCI effect-site concentration (Ce) target of 2 ng/ml, when this concentration reached steady-state, the patients were divided into two groups: Marsh – propofol 1 % infusion started at 3.3ml/kg/h until loss of consciousness (LOC) and at LOC propofol TCI started using the Marsh model using the respective Ce achieved at LOC; Schnider - propofol 1 % infusion started at 3.3ml/kg/h until LOC and at LOC propofol TCI started using the Schnider model with the respective Ce concentration achieved at LOC. Data was recorded (Rugloop®) every 5 seconds during 20 minutes. Offline analysis was done to examine data between 2 and 10 minutes after LOC (study period). Results are Mean ± Standard Deviation. Statistical significance: *p<0.05.Table 1 presents the data of each group, which did not proved to be different. Table 2 shows the data recorded during the study until 10 minutes after LOC, for both groups including haemodynamic variables. The results show a clinical significant decrease of blood pressure from baseline (pre induction) and a prolonged period of time of BIS below 40. Figure 1 shows the BIS induction trend for all patients.Using the predicted effect-site concentration at which LOC occurs as the target for the immediate post-induction period, at least 10 minutes, results in excessive anesthesia. This happen using either of the PK models available in commercial TCI systems. This fact does not necessarily mean that the cerebral effect site concentrations are not being accurately modeled. Most likely, this is due to a now well known phenomenon, "neural inertia".[4] Our results may well be seen as evidence that the cerebral concentration of propofol required to induce LOC is higher than the concentration necessary to maintain adequate anesthesia depth.*

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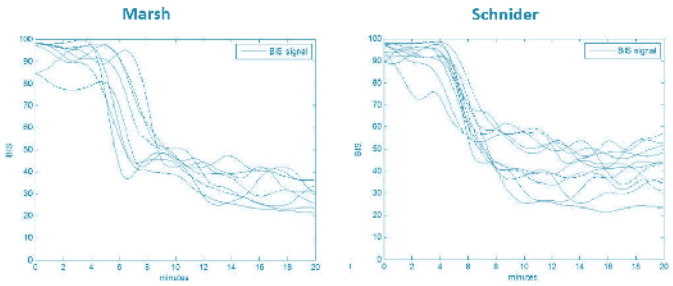

Figura 1

Tabela 1

	Marsh	Schnider
Age (years)	51 ± 15	54 ± 8
Weight (Kg)	70 ± 19	85 ± 35
Height (cm)	161 ± 15	153 ± 27
Gender	6 Female/4 Male	7 Female/4 Male
Blood Pressure (Baseline)	144 ± 25	139 ± 5
Heart Rate (Baseline)	70 ± 17	68 ± 15

Tabela 2

Data examined between 2 and 10 min after LOC	Marsh	Schnider	P-value
BIS	38 ± 5	40 ± 11	0.109
Ce Propofol (µg/mL)	3 ± 0.6	4 ± 0.7	0.536
Propofol (mg/Kg)	3 ± 0.6	2 ± 0.8	0.051
EMG (dB)	33 ± 1	32 ± 1	0.676
% change in Systolic Blood Pressure from Baseline	-24 ± 12	-23 ± 15	0.776
% change in ECG Heart Rate from Baseline	10 ± 55	4 ± 19	0.717
% Time BIS below 40	35 ± 24	38 ± 40	0.280
% Time BIS above 60	1 ± 1	5 ± 6	0.004*

PO78

USING TCI AND CONSTANT INFUSION RATES IN THE INDUCTION OF ANAESTHESIA: A COMPARATIVE STUDY

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Individual patient requirements for loss of consciousness (LOC) vary widely and ideally, one should perform induction giving exactly what individual patient needs.

Induction by a single bolus produces a large overshoot. Otherwise, using effect site (Ce) target controlled infusion (TCI) may overcome overshooting,[1] however by increasing Ce target, steps have to be used and induction can be time consuming. Induction with TCI-view mode and a manually set infusion rate until LOC allows one to stop propofol at LOC identifying the Ce at LOC, but may still result in overshooting. We simulated induction with different combinations of effect site target and continuous infusion rates to identify the induction regime that would minimize the overshoot while not delaying the achievement of Ce of LOC.Propofol Ce concentrations were calculated using Schnider's PK model. 30 different combinations were obtained using two different start Ce targets (0ug/mL and 2ug/mL), followed by a continuous infusion of 2, 3.3 or 5 mL/kg/h until a fixed Ce-LOC value of 3, 4, 5, 6 or 7 ug/mL was verified. After this, infusion rate was set to 0. All simulations were obtained for a standard male patient (50 years, 65kg and 170cm). For each simulation, overshoot value was calculated from the ratio between the Ce peak after LOC and the fixed Ce-LOC value. Delay to Ce-LOC (DLOC) was also calculated, as the time elapsed from the start of the infusion to the first time that Ce-LOC value was achieved.The difference between using starting induction with or without a Ce target resulted in a variation of 1.15 %±0 and 89.2±10.4 seconds in overshooting and DLOC, respectively. For the same target, increasing the infusion rate from 2mL/kg/h to 3.3 mL/kg/h, resulted in a reduction of 240 seconds in the mean value of DLOC (from 370 seconds to 130 seconds), while overshoot mean value increased 4.05 % (from 5.85 % to 9.90 %).Our study suggests that the use of a constant infusion rate, when compared to an infusion method with a starting Ce target, may lead to a reduction in time spent until LOC, without increasing the overshoot significantly. For the same starting target, choosing an infusion rate of 3.3mL/kg/h showed significant improvement in the DLOC, without considerably affecting the overshoot value

REFERENCES:.1 IEEE Trans Biomed Eng. 2004 Nov;51(11):186975.

PO93

QUALIDADE DE RECUPERAÇÃO PÓS-ANESTÉSICA EM DOENTES SUBMETIDOS A CIRURGIA ELETIVA – UM ESTUDO PROSPETIVO OBSERVACIONAL

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A recuperação pós-operatória é um processo complexo relacionado com variados *outcomes*, nomeadamente parâmetros fisiológicos e alterações no estado psicológico. A qualidade de recuperação pós-anestésica deve ser vista como um *outcome* importante após cirurgia e anestesia. O objetivo deste estudo foi avaliar e comparar a qualidade de recuperação pós-operatória e o estado de saúde, antes e após a cirurgia, em doentes propostos para cirurgia eletiva.

Após aprovação pela Comissão de Ética, foi conduzido um estudo observacional e prospetivo, em doentes submetidos a cirurgia eletiva. Critérios de inclusão: doentes maiores de 18 anos, propostos para cirurgia não-cardíaca, não-obstétrica e não-neurológica, admitidos na Unidade Pós Anestésica entre junho e agosto de 2015. Critérios de exclusão incluíam a incapacidade de obtenção do consentimento informado e anestesia loco-regional. Foram recolhidos

dados demográficos e características peri-operatórias de cada doente e foi aplicada a escala PQRS (Postoperative Quality of Recovery Scale) em diversos tempos: no baseline (até 14 dias antes da cirurgia – D0), ao minuto 15 (T15), 40 (T40) e no dia 1 (D1) e 3 (D3).

Recuperação foi definida como o retorno ao valor basal, ou melhoria, para todas as questões de cada domínio. Má qualidade de recuperação (MQR) foi definida como a recuperação em menos de 2 domínios no tempo D1. O estado de saúde foi avaliado com as versões portuguesas da escala EQ-5D e com a WHODAS (World Health Organization Disability Assessment Schedule) score 2.0, em D0 e 3 meses após a cirúrgia (3M). Uma pontuação na WHODAS ≥ 25 na avaliação dos 3M, é equivalente a uma recuperação não completa. Os testes de Mann-Whitney, Qui-quadrado ou o teste exato de Fisher foram usados para a análise estatística.

Dos 206 doentes observados, 182 foram incluídos no estudo. Em D1, os doentes com MQR tiveram uma pontuação média na escala visual analógica (VAS) do EQ-5D semelhante aos restantes doentes (73 vs. 80, p=0.314), tiveram mais problemas na mobilidade (33% vs. 14%, p=0.017), atividades do quotidiano (29% vs. 13%, p=0.045), dor/desconforto (50% vs. 20%, p=0.002) e ansiedade/depressão (88% vs. 55%, p=0.002). Aos 3M, os doentes com MQR tiveram uma pontuação média na VAS do EQ-5D semelhante (80 vs. 80, p=0.945), mas tiveram mais dor (44% vs. 21%, p=0.046). Doentes com MQR apresentaram pontuações médias no teste de WHODAS mais elevadas, indicativas de um pior estado de saúde em D0 (5.2 vs. 2.1, p=0.035), no entanto, as pontuações aos 3M foram similares (2.1 vs. 2.1, p=0.964). Doentes com MQR não se mostraram mais frequentemente incapacitados.

Doentes com MQR apresentaram um pior status de saúde em D0, de acordo com a taxa de problemas encontrados com o EQ-5D e a pontuação do WHODAS; no entanto, na avaliação dos 3M a sua taxa de problemas no EQ-5D (excetuando a dor) e as pontuações para o WHODAS foram semelhantes.

REFERÊNCIAS: Anaesthesiol. Scand 2014; 58:345-351
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ANESTESIA E CUIDADOS INTENSIVOS PEDIÁTRICOS

PO01

FENDA LARINGO-TRAQUEO-ESOFÁGICA EM RECÉM-NASCIDO

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A fenda laringo-traqueo-esofágica (FL) é uma malformação congénita rara, correspondendo a 0,1-1,5% das malformações congénitas da laringe. Caracteriza-se pela existência de uma comunicação sagital posterior anómala entre a laringe e a faringe, podendo envolver inferiormente a traqueia e o esófago. Estão descritos cinco tipos com base na sua extensão, com correlação com a gravidade dos sintomas.

Os desafios relacionados com a anestesia prendem-se com dificuldades na ventilação e abordagem da via aérea (VA) e com a elevada prevalência de malformações associadas.

Pela raridade da patologia, existem muito poucos casos descritos acerca da abordagem anestésica destes doentes.

Apresentamos um caso de um recém-nascido (RN) de 24 dias de vida com FL do tipo IIIb diagnosticada por broncoscopia no contexto de dificuldade respiratória com necessidade de ventilação não-invasiva desde o nascimento e de ventilação invasiva (VMI) desde o 7º dia de vida, proposto para correção cirúrgica após avaliação multidisciplinar.

Foi transferido para o bloco operatório sedado e sobre VMI, tendo sido previamente entubado com apoio de fibroscopia. Para a indução anestésica optou-se pelo o uso de Sevoflurano, Sufentanil e Cisatracúrio, após a qual se iniciou o procedimento cirúrgico com a colocação de uma Gastrostomia Percutânea Endoscópica, seguido de traqueostomia e posterior encerramento da parede laríngea, traqueal e esofágica por abordagem cervical anterior. A cirurgia teve uma duração aproximada de cinco horas, com manutenção de estabilidade dos parâmetros vitais, com perdas hemorrágicas mínimas, sem intercorrências. Após a cirurgia foi transferido sobre VMI por traqueostomia para a Unidade Cuidados Intensivos Neonatal.

O diagnóstico de FL é feito por endoscopia e o tratamento depende da extensão e das malformações associadas, envolvendo proteção da VA e suporte ventilatório, controlo do refluxo gastroesofágico e reparação cirurgia por via endoscópica para as FL do tipo I, II e III e por cirurgia convencional para algumas fendas do tipo III e IV.

As FL tipo IIIb estendem-se através da cartilagem cricoide até à porção cervical da traqueia. Assim, a abordagem da VA, as dificuldades de ventilação e a falta de experiência pela sua raridade colocam dificuldades na abordagem destes pacientes.

O uso de anestésicos inalatórios condiciona a poluição do campo operatório, devendo o recurso à Anestesia Geral Endovenosa (TIVA) ser considerado. Tendo em conta a nossa falta de experiência com o uso de TIVA em RN optámos por uma Anestesia Geral Balanceada com Sevoflurano e Sufentanil que se constitui como uma opção eficaz, confiável e segura, com um perfil hemodinâmico estável.

A abordagem multidisciplinar durante o período perioperatório é essencial para garantir a abordagem adequada às necessidades destes doentes e para excluir a presença de outras malformações frequentemente associadas.

PO02

ANESTESIA COMBINADA: UMA OPÇÃO NA DISTROFIA MUSCULAR DE DUCHENNE

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