POSTER REVIEW #3

A84 (Poster 53)

RAPACURONIUM FOR RAPID SEQUENCE INDUCTION IN ELECTIVE CESAREAN SECTION *Brueckner-Schmid, B.; Petzold, I.; Brueckner, J.B. Anaesthesiologie, Charite-CVK, 13353 Berlin, Germany* We have investigated 2.0 (2RP) and 2.5 mg/kg (2.5RP) rapacuronium (RP) in a partially assessor-blinded trial,comparing the time course of action and evaluating the intubating conditions (1) in 40 full term parturients untergoing elective cesarean section (CS) under general anesthesia. In a previous study an intubating dose of 2.5 mg/kg rapacuronium was compared to 1.5 mg/kg succinylcholine in CS (2). With IRB approval all patients gave informed consent. Multiple gestations, fetal death or congenital anomalies were excluded. After preoxygenation, Thiopentone (4 mg/kg) was given iv followed by randomization to 2.0 or 2.5 mg/kg rapacuronium. Intubation was performed 60 sec later. Anesthesia was maintained with N20/02 and Desflurane (3vol% endex). Neuromuscular function was monitored using an TOF-GUARD (Organon-Teknika). When 90 min after RP TOF 89% was not reached, neostigmine was given. This happened in 7 (2RP) and 18 (2.5RP) patients, respectively. Onset-time was not statistically significant different: 122±72 sec(Mean,SD)(2RP) and 98±48 sec(2.5RP) respectively. Intubating score showed good to excellent conditions from 90% (2RP) to 100% (2.5RP). All patients were intubated within 80 seconds post RP. Time to reappearance of T3 was just not statistically different: 18.4(±7.1)-2RP and 22.3(±4.9)-2.5RP min respectively (p=0.053). There were no neonatal adverse effects. No serious adverse events occured. Erythematous rash appeared for about 5 min in 3 (2RP) and 4 (2.5RP) patients. Bronchospasm occurred in 4 (2RP) and 1 (2.5RP) patients, accompanied with a decrease in SO2 of more than 10% for a few minutes. Conclusion: In both groups acceptable intubating conditions were seen in 90–100% of patients. Compared to 2.5 mg/kg, a 2.0 mg/kg intubating dose of rapacuronium showed no difference in onset time whereas a tendency to a shorter time to reappearance of T3 was observed. A dose of 2.0 mg/kg RP appears to be just as suitable as 2.5 mg/kg for Cesarean Section. **Reference:** 1. Acta Anaesth Scand 1996,40:59 2. Br J Anaesth 1999,83:862

A85 (Poster 54)

HOW FAST ARE WE? *Gunka, V.B.; Douglas, M.J. Anesthesia, BC Women's Hospital, Vancouver, BC, Canada* **Introduction:** Simulating an OR crisis enables anesthesiologists to critically analyze the decision making process without compromising patient safety. Marx found induction-incision times for GA were 55–90″ and for spinal anesthesia (injection-incision) 4.5′-6.0′(1). Under simulated emergency conditions we measured anesthetic preparation times for GA and spinal anesthesia. **Methods:** 9 obstetric anesthesiologists were told to induce anesthesia as rapidly as possible. The following assumptions were made: emergency drugs prepared, machine check done, monitors on and woman had normal anatomy. Time began on entering OR. Simulation Spinal Anesthesia: Styrofoam 50x50 cm was placed on OR table to represent patient's back. Time included opening of spinal kit, preparation & draping, drawing up drugs, identifying space, skin injection, and placement of spinal needle. To establish time for block to be effective spinal anesthetics were audited for time from spinal injection to anesthesiologist telling surgeon to start. Spinal solution, speed of injection, and level of block considered adequate for surgery were recorded. Simulation GA: Mannequin on OR table with IV line represented a patient. Time included pre-oxygenation, injection of drugs, laryngoscopy, intubation, and confirmation of tube placement. Simulations were repeated twice/participant. Mean times for spinal and GA were calculated. **Results:** To date, 8 anesthesiologists participated. Time to identify CSF was 1′58″. Time from CSF to "ready" was 4′30″(n=15). Total time to ready for surgery with spinal was 6′28″ and time for induction GA was 2′6″. **Discussion:** Many assumptions were made. For example in the emergency situation CSF may not be identified on 1st attempt. This type of study shows that induction of general anesthesia is more rapid than spinal anesthesia, due to the time required for adequate block. It confirms Marx's findings under ideal conditions. **Reference:** Marx GF et al. Fetal-neonatal status following caesarean section for fetal distress. Br J Anaesth 1984;56:1009

A86 (Poster 55)

REGIONAL VS GA FOR TWIN-TWIN TRANSFUSION SYNDROME REQUIRING FETAL SURGERY *Myers, L.B.; Galinkin, J.L.; Gaiser, R.R. Anesthesiology, Children's Hospital of Philadelphia, UPENN, Philadelphia, PA* **Introduction:** Fetoscopic surgery is a treatment option for patients with severe Twin-Twin Transfusion Syndrome(TTTS). Selective fetoscopic laser photocoagulation (SFLP) can improve the survival rate for one or both twins.We compared regional (RA) vs general anesthesia (GA) for fetoscopic surgery looking specifically at pt demographics, total drug and fluids, and surgical requirements to determine if one technique is superior to the other. **Methods:** After IRB approval, we retrospectively reviewed the anesthetic records and surgeon's operative reports in 17 consectutive women undergoing SFLP for severe TTTS from 7/96 to 1/01. Records were reviewed for pt's wt, type of anesthesia provided, amount of crystalloid required, total ephedrine and fentanyl required, # of trocars required for surgery, and placenta location. The data was analyzed using an unpaired student t-test. P<0.05(*) was considered statistically significant. **Results:** Demographics were similar between the two groups. As the table below demonstrates, the RA group required significantly more crystalloid that the GA group. Patients with anterior placentas received GA more than patients with posterior placentas. **Discussion:** RA is an effective technique for the management of SFLP provided the placenta is posterior-.This allows for larger windows for surgical trocar insertion. More IV fluid was required with RA, placing the pt at increased risk for pulmonary edema postoperatively 2° to tocolytic agents. GA was required for those pts with anterior placentas due to increased surgical technical difficulty with trocar insertion. **Reference:** 1. Bianchi DW. Fetology. 2000. 2. AM J Ob Gyn Oct98 pp 925-33.

Anesthesia	Pt weight (kg)	Crystalloid (cc)	Fentanyl (ug)	Ephedrine (mg)	# trocars	placenta location
RA	73.6 ± 10.6	1342 ± 678 *	117 ± 98.7	45 ± 46.5	1 = 85% 2 = 15%	posterior 85% anterior 15% *
GA	83.0 ± 22.2	392 ± 117	157 ± 60.7	24.2 ± 24.9	1 = 100%	anterior 85% posterior 15%