44471 - DOES THE PRESENCE OF SUBARACHNOID HAEMORRHAGE INFLUENCE ANALGESIC REQUIREMENTS AFTER TREATMENT WITH SURGICAL CLIPPING OR ENDOVASCULAR COILING OF INTRACRANIAL ANEURYSMS?

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INTRODUCTION: Treatment of patients with intracranial aneurysms is possible with either surgical clipping or endovascular coiling. However patient analgesia requirements after treatment remains controversial (1)(2). We assessed if the presence of a sub arachnoid haemorrhage (SAH) influences the post procedure opiate use in patients treated with craniotomy compared to coiling.

METHODS: Following IRB approval and patient consent, data was collected prospectively on all patients undergoing treatment of intracranial aneurysm. Patients were divided into four groups: unruptured (no SAH) endovascular repair (EU), ruptured (SAH) endovascular (ER), unruptured craniotomy (CU), and ruptured craniotomy (CR). Total opioid medications given in the 48hours post procedure were recorded (fentanyl, codeine, morphine) and converted to morphine equivalents for comparison. Pain scores were measured using a ten point visual analog scale at the pre operative visit, and at post procedure 1,4,24 and 48 hours. All data was analyzed on a Compaq pc running windows 2000 professional using statistical package SPSS version 11. Continuous data was analyzed using a one way ANOVA. Ordinal data was analyzed using Mann Whitney test with Bonferetti correction. A p value of <0.05 was taken to be significant. The null hypothesis was that there was no difference in opiate use between the four groups of patients.

RESULTS: Data on 134 patients was collected and displayed in table. There was no difference between the ages and weights of the patients in the 4 groups. Patients having endovascular coiling had shorter durations of surgery and shorter hospital stays than those who had their aneurysms surgically clipped. Patients with unruptured aneurysms had lower VAS scores pre procedure. Post procedure at 1 hr there was no difference in pain scores between any of the groups however as time progressed, patients in the EU group had significantly lower pain scores than the others. Patients in the EU group required less postoperative opioids than the other 3 groups enabling us to reject the null hypothesis.

DISCUSSION: We found that the patients with a SAH experienced similar levels of pain and required similar levels of opiates regardless of the method of repair within the first 48 hours. Adequate analgesia to all patients with SAH should be administered regardless of method of repair.

REFERENCES: 1)Roberts GC. EJA 2005;22:328 2)Dubar PJ. Anesth Analg 1999;88:335.

	EU N=43	ER N=16	CU N=28	CR N=47
Age (yr)	48 ±14	55 ±12	52 ±10	51 ±10
Procedure Fentanyl(mcg)	213 ±98 α	241 ±102 α	330±147	376 ±123
VAS Pre	1 ± 2 *	7 ± 2	2 ± 3 *	6 ± 3
VAS 4hr Post	3 ± 3 α	5 ± 3	6 ± 2	5 ± 3
VAS 24hr Post	3 ± 2 β	5 ± 2	5 ± 2	5 ± 2
VAS 48hr Post	3 ± 2 δ	5 ± 2	5 ± 2	4 ±3
Morphine Equivalent (mg)	11 ±15 β	27 ±19	31 ±20	29 ±21

(Values are mean ± SD). * p<0.05 from ER and CR;
α p<0.05 from CU and CR; **β** p<0.05 from ER, CU and CR;
δ p<0.05 from ER and CU.