TITLE: COMPARISON OF PROPOFOL AND MIDAZOLAM-PROPOFOL FOR OUTPATIENT ANESTHESIA: RECOVERY CHARACTERISTICS.

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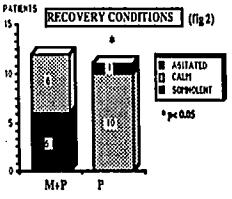
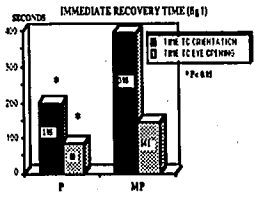
A major requirement for day-case surgery is rapid and clear-headed recovery from anesthesia. With regard to recovery, clinical trials have shown that Propofol (P) is a suitable anesthetic agent. Assessment of Midazolam (MDZ) in previous studies showed that immediate and intermediate recovery were delayed compared to thiopental (1,2) . This study aimed to compare the recovery characteristics after anesthesia induced either with a combination of half-divided doses of both MDZ and P or a standard induction dose of P alone. After institutional approval and informed consent were obtained, 23 ASA1 women scheduled for outpatient laparoscopy under general anesthesia entered into the study. Hydroxyzine 100mg and cimetidine 400mg p.o. were given 90 min before induction. After preoxygenation and fentanyl (2mcg/kg), patients were randomly allocated to one of 2 groups : Group P: P 2.5mg/kg, Group MP: MDZ 0.1mg/kg and P 1.25mg/kg. Vecuronium bromide(0.08mg/kg) was added to provide muscle relaxation. Anesthesia was maintained with nitrous oxide (N2O) in O2, and I 1% was introduced upon objective signs of awakening. Recovery times were measured from cessation of the N2O inhalation. Immediate recovery (IR) was assessed by measuring time to eye opening (Teo) on verbal command, and time to orientation (Tor), and was described as somnolent, calm or agitated. Patients were then transfered to the recovery room (RR) where intermediate recovery (ITR) was evaluated using the Robertson scoring system every 30min (T0,T30,T60,T90). Side effects and hemodynamic data were also recorded. Patients were dicharged at home 5 hours after anesthesia (T5h) if they met the usual street fitness criteria, and were able to perform the Romberg test with closed eyes. Psychomotor performance was evaluated by the Trieger Dot test (TDT) before anesthesia, at T90 and T5h. On discharge, patients were given a questionnaire for evaluation of late recovery (LR): anesthetic experience, occurence of intraoperative awareness and number of days before returning to normal daily activity. Results were expressed as mean ± SD. Statistical analysis included ANOVA followed by Student's t test for parametric data and Chi-square test with Yates correction for non parametric data. $p<0.05$ was considered significant.

Both groups were comparable with respect to height, weight, duration of anesthesia (32±4.5 vs 33±4.7 min) and baseline hemodynamic values, but patients in group MP were older (36±7 vs 30±7). Two patients in group MP required I 1% for maintenance of anesthesia (NS). IR data are shown in figures 1 and 2. There was no difference between groups in Robertson scores, hemodynamic data and side effects during ITR as well as in the TDT score throughout the study. However, TDT score returned to preoperative values at T90 only in group P. No intraoperative recall was noticed, and time to return to daily activity was similar in both groups.

Despite the delayed early recovery found with the combination of MDZ and P, within 90min after completion of anesthesia, there was no difference between groups in the state of wakefulness. Thus, the combination of MDZ-P appears to be as suitable as P alone, used as part of a balanced anesthetic technique, for short outpatient surgical procedures.

1/ Br J Anaesth: 1984, 56, 165. 2/ Acta Anaesthesiol Scand: 1987, 31,634.





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TITLE : PROPOFOL VERSUS BENZODIAZEPINES FOR SEDATION DURING ENDOSCOPY

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Propofol,a new intravenous anesthetic,can be an alternative to benzodiazepines commonly used for sedation during endoscopy.The aim of this study was the comparison among three sedation techniques for colonscopy procedures on outpatients.

After ethical approval and informed consent,60pat.(ASAI-II)received fentanyl(1mcg/kg) as premedication and were randomized in three groups.Group A(n=20):the sedation was induced with a dose of propofol(2mg/kg) and maintained by continuous infusion(6mg/kg/h).Group B(n=20):the pat.were sedated with flunitrazepam(0.015mg/kg)and in group C with diazepam (0.15mg/kg).Sistolic and diastolic blood pressure (SBP-DBP),heart rate(HR) were recorded prior to and immediately after induction of sedation and every 5 minutes to the end of endoscopy.The sedation level, assessed both objectively(OSL)and subjectively(SSL)and procedure feasibility for endoscopist (PFE) were evaluated using an analog scale The occurence of apnoea(APN) and side effects were recorded.Statistical analysis : paired t-test was used to detect significant differences of hemodynamic values from the baseline.OSL, SSL, PFE and APN classification were tested using a logistic trend test.

Demographics data were equal in all groups. SBP and HR were significantly decreased (P<0.05)in group A,SBP in group B (P<0.05) whereas DBP was increased (P<0.05)in group C from baseline value.OSL was deeper in group A than group B and C.SSL was more pleasant in group A than in group B and C(TAB.1). PFE significantly positive in group A vs B and C.The occurence of APN was statistically different between group B and C,but not between A and B. No pat.showed side effects.

Cardiovascular effects and the occurence of APN were significantly more important in propofol than benzodiazepines groups,but the degree of sedation was deeper and more confortable for the patient and endoscopist.

TAB.1 * logistic trend test

Group	A	B	C	(P*)
OSL weak	0	6	16	
deep	5	5	4	<0.01
unconscious	15	9	0	
SSL excellent	14	8	3	
good	6	9	9	
sufficient	0	3	5	<0.01
poor	0	1	3	
PFE excellent	10	8	4	
good	9	7	8	<0.01
sufficient	1	4	5	
poor	0	1	3	
APN	14	5	0	<0.01

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