

CHAPTER VI

RESULTS OF THE STUDY

There were 64 patients enrolled in this study, 32 patients in each group.

Table 6.1 General informations of halothane and isoflurane patients

	Halothane (n=32)	Isoflurane (n=32)	P
Age (year)	32.34 ± 6.47	35.13 ± 5.78	0.08
Body weight (kg.)	51.94 ± 6.13	53.16 ± 7.35	0.47
Height (cm.)	156.50 ± 4.55	158.09 ± 4.39	0.16
B.M.I. (kg./m ²)	21.19 ± 2.17	21.23 ± 2.41	0.94
A.S.A.status 1:2	32 : 0	30 : 2	0.49
	(100% : 0%)	(93.8% : 6.3%)	

This table shows the mean age, weight, height, B.M.I. and A.S.A. status ratio of the two groups. By unpaired t-test, their age, weight, height and B.M.I. were not different and by Fisher-Exact test, their A.S.A.status was not either.

Table 6.2 Diagnosis of halothane and isoflurane patients

	Halothane (n=32)	Isoflurane (n=32)
Endometriosis	13	10
Infertile	9	15
Others	10	7
(Tumor, s/p T.S., chronic pelvic pain, Endometrial polyp, septate uterus, fertility)		

For diagnosis, most of the patients in each group were endometriosis and infertile. The others were tumor, s/p T.S., chronic pelvic pain, endometrial polyp, septate uterus and fertility. Most patients in each group underwent gynecologic diagnostic laparoscopy except 2 patients in isoflurane group and 3 patients in halothane group underwent laparoscopic surgery (laparoscopic ovarian cystectomy and tubal sterilization).

Table 6.3 Baseline psychomotor and cognitive score

	Halothane (n=32)	Isoflurane (n=32)	P
B.B.T.	28.69 \pm 5.31	28.88 \pm 5.56	0.89
D.S.S.T.	48.19 \pm 15.37	48.38 \pm 14.18	0.96

This table shows that the baseline performances (B.B.T. and D.S.S.T.) of these 2 groups were not statistically different.

Table 6.4 Duration of operation and anesthesia of halothane and isoflurane groups

	Halothane (n=32)	Isoflurane (n=32)	P
Duration of operation (min.)	31.53 \pm 24.67	20.72 \pm 12.84	0.14
Duration of anesthesia (min.)	45.44 \pm 29.46	31.78 \pm 13.77	0.07

This table shows that there was no statistically significant difference between these 2 groups concerning duration of operation and anesthesia.

Table 6.5 Intravenous drugs used in halothane and isoflurane patients

	Halothane (n=32)	Isoflurane (n=32)	P
Propofol (mg.)	103.88 \pm 12.26	106.50 \pm 14.79	0.44
S.choline (mg.)	77.91 \pm 9.19	79.75 \pm 11.00	0.47
Vecuronium (mg.)	4.81 \pm 1.17	4.47 \pm 0.65	0.15
Atropine (mg.)	1.20 \pm 0	1.22 \pm 0.11	0.32
Prostigmine (mg.)	2.50 \pm 0	2.54 \pm 0.22	0.32

This table shows that the intravenous drugs used in these 2 groups were not statistically different.

Table 6.6 Recovery of halothane and isoflurane patients

	Halothane (n=32)	Isoflurane (n=32)	P
Extubation (min.)	4.03 \pm 1.86	5.06 \pm 3.43	0.14
Response verbal command (min.)	6.13 \pm 3.41	5.69 \pm 3.36	0.61
Orientation (min.)	8.59 \pm 5.96	7.16 \pm 3.44	0.24
Sit up unaided (min.)	42.19 \pm 18.45	37.50 \pm 15.24	0.26
Stand up unaided (min.)	69.38 \pm 26.87	54.38 \pm 24.62	0.02
Walk unaided (min.)	74.06 \pm 26.38	58.13 \pm 27.41	0.01
B.B.T. and D.S.S.T. (min.)	87.19 \pm 26.79	77.81 \pm 35.63	0.10

Concerning the clinical recovery, there was no statistically significant difference between the 2 groups except the times from the end of anesthesia to the times taken to stand up and walk unaided. However, for the psychomotor and cognitive recovery, there was no significant difference in time from the end of anesthesia to the end point of the psychomotor and cognitive tests. The times to complete the B.B.T. and D.S.S.T. were 87.19 \pm 26.79 min. and 77.81 \pm 35.63 min. for halothane and isoflurane groups respectively.

Table 6.7 Incidence of intraoperative complications

	Halothane (n/total)	Isoflurane (n/total)	P
Bradycardia	2/32	0/32	0.49
Hypotension	5/32	2/32	0.43
Hypertension	0/32	1/32	1.0
Awareness	0/32	0/32	1.0

Table 6.8 Incidence of postoperative side effects

	Halothane (n/total)	Isoflurane (n/total)	P
Nausea	5/32	5/32	1.0
Vomiting	3/32	1/32	0.61
Dizziness	20/32	14/32	0.21
Headache	3/32	2/32	1.0
Sore throat	24/32	24/32	1.0
Shivering	1/32	2/32	1.0
Muscle pain	6/32	4/32	0.73
Pain at I.V.injection site	2/32	7/32	0.15

Table 6.6 and 6.7 show that there was no statistically significant difference in the numbers of patients who experienced intraoperative and postoperative side effects between these 2 groups.

Table 6.9 Postoperative pain scores (V.A.S.)(mean \pm S.D.)

Group	Time (min.)			
	0	30	60	90
Halothane (n=32)	0	4.37 \pm 2.95	3.38 \pm 2.62	2.63 \pm 2.68
Isoflurane (n=32)	0	4.06 \pm 2.86	3.57 \pm 2.74	2.93 \pm 2.69

P = 0.92

Table 6.10 Postoperative analgesic requirement

	Halothane (n/total)	Isoflurane (n/total)	P
Diclofenac (75 mg. im.)	5/32	3/32	0.71

Regarding postoperative pain, the pain score in these 2 groups was not statistically different, neither was the number of the patients who needed an analgesic drugs.

Table 6.11 Patients' satisfaction and acceptance of anesthesia

	Halothane (n=32)	Isoflurane (n=32)	P
Willingness to choose this technique	31/32	31/32	1.0
Satisfaction 1:2:3:4:5*	12:13:6:1:0	14:9:8:1:0	0.93

* 1 = very good, 2 = good, 3 = satisfactory, 4 = poor, 5 = very poor

Concerning the patients' acceptance, there was no statistically significant difference between the 2 groups both in willingness to choose this anesthetic technique and the level of satisfaction.