

**TITLE:** TIMING OF PREOPERATIVE EVALUATION FOR SURGICAL OUTPATIENTS—DOES IT MATTER? PART II

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**INTRODUCTION:** The value of physically screening all outpatients in advance of surgery has been questioned by these authors in a previous study comparing early vs day of surgery evaluation for patients undergoing elective termination of pregnancy. We redesigned the study in a different group of outpatients to compare the effect of early vs day of surgery preoperative evaluation on patient anxiety levels, satisfaction with their surgical and anesthetic experience, perioperative anesthetic and analgesic requirements, length of stay and incidence of problems on follow-up.

**METHODS:** Sixty-three ASA I & II patients undergoing gynecological laser surgery or elective dilatation and curettage for other than termination of pregnancy under general anesthesia gave informed consent to participate in this IRB approved research. All patients were scheduled for presurgical testing and were given a Spielberger Trait Anxiety Questionnaire to complete. The patients were randomized into two groups: group I was seen by the anesthesiologist at the time of presurgical testing (1-6 days pre-op), group II was seen by the anesthesiologist only on the day of surgery. Both groups completed the Spielberger State Anxiety Questionnaire on the day of surgery pre-op and post-op. Both groups received a standardized anesthetic consisting of Pentothal, Alfentanil,

Nitrous Oxide, Oxygen, Droperidol and muscle relaxant if indicated. Amount of anesthesia, time spent in O.R., Recovery Room and ambulatory unit and postoperative analgesic requirements were recorded. Patients completed a satisfaction questionnaire prior to discharge and were contacted at home to assess degree of recovery. Data were analyzed by analysis of variance and chi-square.

**RESULTS:** The groups did not differ with regard to age, race, marital status, education, employment, prior anesthetic or gynecological history. There were no differences between the groups for Trait Anxiety Scores, which measure the character makeup of the individual, nor for the pre or post-op State Anxiety Scores, which measure the subjects' anxiety relative to the immediate situation. Statistically significant differences did occur between surgical groups: patients undergoing laser surgery had less prior anesthetic history, were younger, weighed less, had longer operative time, and required more pain medications and prescriptions postoperatively. These surgical differences however, did not affect anxiety scores or overall levels of satisfaction.

**CONCLUSION:** There were no differences in any of the outcome measures analyzed including anxiety scores between the two groups studied. The type of operation has a more powerful effect on outcome than the timing of preoperative evaluation. We conclude that outpatients do not benefit from visiting the anesthesiologist prior to the day of surgery.

**TITLE:** Spinal Anesthesia With 27-Gauge Needles For Ambulatory Surgery Patients

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Spinal Anesthesia (SA) has been reported as inappropriate for ambulatory surgery patients because of the high incidences of post dural puncture headache (PDPH) and post spinal back pain (PSBP)<sup>1,2</sup>. This study was undertaken to determine if the use of 27-gauge needles would reduce the incidence of spinal anesthesia complications.

With approval by the Institutional Review Board, 249 patients received SA after informed consent. SA was administered with a 27-g B-D spinal needle through a 20-g B-D introducer needle using lidocaine 5% with glucose 7.5%. After complete recovery from SA, patients were discharged from the hospital without activity restrictions. Telephone surveys were made on the 1st, 3rd, 5th, and 7th postoperative days to inquire about PDPH and PSBP. The severity of pain was graded on a 0-10 Verbal Numerical Scale (VNS) (0: no pain, 10: the worst pain imaginable)<sup>3</sup>. The Chi square test was used for statistical analysis with  $P < 0.05$  considered significant.

5 patients could not be located and 2 were hospitalized due to extended surgery. Among remaining 242 patients, 111 were males (age 18-88 years) and 131 were females (age 18-94 years). The distribution

of patients and surgery performed are listed as below.

	Orthopedic	Gynecologic	Urologic	Anorectal
Male	91	0	12	7
Female	53	71	4	4

2 males and 3 females reported PDPH (an overall incidence of 2.1%). The incidence of PDPH for males was 1.8% and 2.3% for females ( $P > 0.05$ ). Among patients under 40 years of age, the incidence was 2.5% for males and 3.2% for females ( $P > 0.05$ ). The overall incidence of PSBP was 21.4%. The incidence of PSBP, of which the severity was greater than grade 3 on VNS, was 3.6% for males and 14.5% for females ( $P < 0.05$ ).

The use of 25-g needles has been reported to have a 37.2% incidence of PDPH and 54.9% incidence of PSBP<sup>1</sup>. When using 26-g needles, an 18% incidence of PDPH, which rose to 39% when considering patients under 40 years of age, has been reported<sup>2</sup>. In our study with 27-g needles, the incidence of PDPH and PSBP was 2.1% and 21.4%, respectively. The intensity and duration of symptoms was limited and none of the patients required epidural blood patch. Patient's acceptance of SA was high: 98% of patients reported their preference for SA in the future. We conclude that SA with the 27-g needle is an acceptable anesthesia technique for ambulatory surgery patients with a reduced incidence of post spinal anesthesia complications.

27-g needles were provided by Becton Dickinson.

#### References:

1. Anaesthesia 40: 1108-1111, 1985
2. Ann R Coll Surg Engl 70: 144-146, 1988
3. Clin J Pain 3: 197-199, 1988