

TITLE: EVALUATION OF GERTIE MARX NEEDLE FOR SPINAL ANESTHESIA IN OBSTETRICS

AUTHORS: J. Dimowo, M.D., T. K. Abboud, M.D., J. Zhu, M.D.

AFFILIATION: Anesthesiology Department, Los Angeles County+University of Southern California Medical Center, Los Angeles, CA 90033

The use of pencil point spinal needles is associated with a lower incidence of postdural puncture headache (PDPH) than with Quincke-tip needles of comparable sizes (1, 2). Gertie Marx needle is a new pencil point spinal needle that has a special design. The purpose of the present study is to compare the ease of placement, failure rate and the incidence of PDPH using the 24G. Gertie Marx and 25G. Whitacre needle.

After approval of the institutional review board and informed consents, healthy parturients undergoing cesarean section or post partum tubal ligation using spinal anesthesia were studied. Patients were randomized into two groups using a computer generated table, Gertie Marx group (n=24) and Whitacre group (n=21). All patients were prehydrated. Spinal anesthesia was performed in a routine manner by residents with the same level of training. Parameters recorded during the study included time and number of attempts for spinal needle placement, rate of CSF flow (time elapsed from removal of stylet till CSF appearance at the hub of the needle), failure rate and the incidence of PDPH.

Data were analyzed for statistical significance using students t-test or chi-square when appropriate. A P value of < 0.05 was considered statistically significant.

Results are presented in the Table and they indicate that Gertie Marx needle is associated with faster CSF flow (P<0.01) compared to Whitacre needle with less failure rate. None of the patients in the study groups developed PDPH.

Results from our study indicate that CSF flow rate was two times faster through Gertie Marx needle compared to Whitacre needle – this finding is clinically significant in terms of ease of use which may result in a higher success rate with fewer multiple attempts.

TABLE

	Gertie Marx n=24	Whitacre n=21
Failed Spinal	0	2
CSF flow (SEC.)	12.1± 1.3	23.7 ± 2.7*
PDPH	0	0

*P<0.01

References

1. Regional Anesthesia 18:166-169, 1993
2. Canadian Journal of Anesthesia 40:1131-113 5, 1993