

Women Experiences Of Spinal Anaesthesia During Caesarean Delivery In Enugu, Southeast, Nigeria

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Abstract

Improvements in Spinal Anaesthesia (SA) have made the procedure the anaesthesia of choice for caesarean delivery. To assess the effectiveness of SA in relieving pain during caesarean delivery; the associated complications and patient's satisfaction with the procedure. Two hundred and forty six (246) patients who had caesarean delivery under SA in ESUTHP, Enugu from May 1, 2011 to April 30, 2012 were studied with structured questionnaires. Using the 0 to 10 comparative pain scale; there was no pain in 16.26% of the patients, minor pain in 69.10%; moderate pain in 13.82% and severe pain in 0.81%. Post-spinal headache (42.23%), lower limb numbness (48.80%), nausea and vomiting (7.31%), shivering (9.76%) and back pain (19.51%) were the common complications experienced by the patients. Over 80.00% of the patients were satisfied SA, 208 (84.55%) will accept SA in future surgeries and 77.24% will recommend SA to friends. Being awake during surgery was the greatest source of satisfaction in 95% of the patients. About 90.5% of patients who had previous caesarean delivery under general anaesthesia now preferred SA to general anaesthesia. Spinal anaesthesia is safe, simple and the preferred anaesthesia for caesarean delivery.

Keywords: Spinal anaesthesia, Caesarean delivery, Complications, Satisfaction.

INTRODUCTION

August Bier performed the first clinical spinal anaesthesia with cutting needles of 0.6-1.2mm diameters in 1889 (Bier, 1889). The procedures were then associated with complications that caused decline in their use for many years. (Fink, 1988). The current uses of fine spinal needles and pre loading patients with normal saline have reduced most of the common complications associated with SA (Cope 1995). SA produces complete analgesia with profound muscle relaxation and quiet respiration. These qualities made SA more patients and health workers friendly than general anaesthesia. General anaesthesia is commonly associated with increased anaesthetic maternal deaths during caesarean delivery due to failed intubation (Okafor and Ezegwui, 2009). The Royal College of Anaesthetists recommended that 85% of emergency caesarean delivery should be carried out under regional anaesthesia because of its

relative safety over general anaesthesia (Farman, 1980). As SA is rapidly becoming popular, it is pertinent to evaluate the experiences of the women who had the procedure during caesarean delivery. In this study we assessed the effectiveness of SA in relieving pain during caesarean delivery, the associated common complications and patient's satisfaction with the procedure.

MATERIALS AND METHODS

The questionnaires were administered to 246 women within seven days of caesarean delivery under SA in the hospital from May 1, 2011 to April 30, 2012. The patients were counselled and consent obtained for the study. They were assessed for anaesthetic fitness and preloaded with 1.0 to 1.5 litres of normal saline 10 to 30 minutes before SA and caesarean delivery. SA was performed by injecting 2-3mls of hyperbaric 5% lignocaine through the L3/L4 interspace into subarachnoid space and the patient assumed

supine position within 30 seconds of injection. SA usually blocks from T10 dermatomes and this is suitable for caesarean delivery and lower limbs operations. SA is contra indicated in patients who refused to give consent, or who had uncorrected hypovolaemia, anaemia, heart disease, local skin infection and bleeding disorders. Four failed procedures in this study were also excluded from the analysis. The comparative pain scale (Alice, 12/08 last update), was used to assess the intensity of pain experienced by the patients within seven days of the operation in the wards. Patient's biodata, complications and with SA were also analysed manually and with Microsoft office Excel 2007.

The procedure undertaken was approved by the hospital Ethics Committee and there were no conflict of interest.

RESULTS

Most of the patients (Table 1) were of 20- 39 year of age (95%), married (98.4%), had secondary and tertiary education (90.98%); Christians (95.12%), Igbo (89.43%) and living in urban areas (90.24%). Two hundred (8\3%) patients were booked. About 8.94% and 51.22% had previous experiences of A and general anaesthesia respectively. One hundred and sixty four (66.67%) patients had anaesthetic counselling in the ward and that allayed anxiety in the theatre in 51.22%. Allowing husbands in theatres during caesarean delivery under SA may increase childbirth satisfaction in 67.4% patients.

There was no pain in (16.26%) patients (Table 2), very mild pain occurred in (45.53%) patients, discomforting pain in (6.50%) and tolerable pain in (17.07%) patients. Other pain experiences of the patients were distressing pain (6.50%), very distressing pain (4.07%) and intense pain (3.25%). Complications that occurred in this study (Table 4 and Figure I) were nausea and vomiting (7.31%), back pain (19.51 %), shivering (9.76%), post-spinal headache (42.23%), lower limb numbness for more than 12 hours (48.8%), itching 1.63%) and hypotension (4.06%). There was neither total spinal anaesthesia nor maternal death during the study. Two hundred and eight (84.55%) will accept SA in future surgeries and 190 (77.24%) will recommend SA to friends. Patients being

Table 1: Scio-demographic characteristics of patients

Age [Years]	Number	Percentage(%)
<20	2	0.8
20-29	110	44.7
30-39	126	51.2
>40	8	3.3
Marital status		
Married	242	98.4
Single	2	0.8
Widowed	2	0.8
Level of Education		
None	8	3.3
Primary	14	5.7
Secondary	104	42.3
Tertiary	120	48.8
Parity		
1	86	35.0
Multiparous (2 and above)	160	65.0
Booking status		
Booked	200	81.3
Unbooked	46	18.7
Previous experience of spinal anaesthesia		
Previous experience of general anaesthesia	126	51.2

Table 2: Distributions of intensity of pain experienced at caesarean delivery under SA

	Number	Percentage(%)
No pain	40	16.26
Very mild pain	112	45.52
Discomforting pain	16	6.50
Tolerable pain	42	17.70
Distressing pain	16	6.50
Very distressing pain	10	4.07
Intense pain	8	3.25
Very intense pain	2	0.81
Utterly horrible pain	0	0.00
Excruciating pain	0	0.00
Unimaginable pain	0	0.00

Table 3: Distributions of common complications spinal anaesthesia

	Number	Percentage
Names and Vomiting	18	7.3
Itching	4	1.6
Shivering	8.4	34.2
Hypertension	10	4.1
Headache	104	42.3
Lower limb numbness >12 hrs	120	48.8
Back pain	48	19.5
Total spinal anaesthesia	0	0.0
Spinal abscess	0	0.00

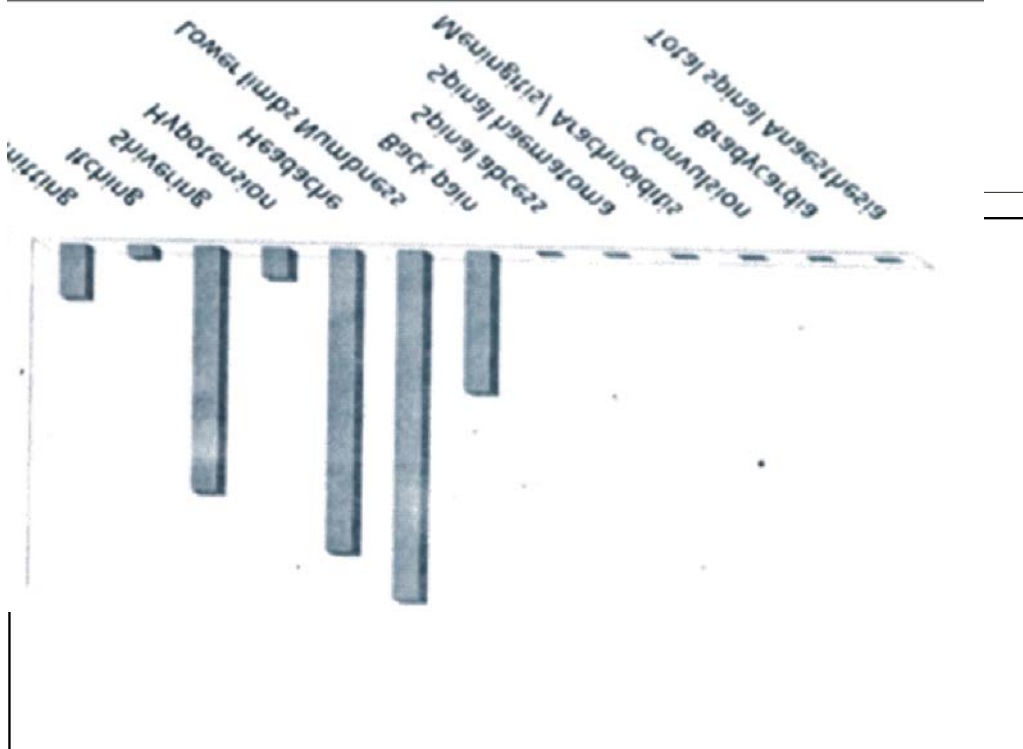


Figure 1: Distributions of Common Complications of Spinal Anaesthesia

Table 4: sources of satisfaction during SA

	Number	Percentage
Happy to see, touch and kiss child at birth	234	95.12%
Overall you Preferred Spinal to General Anaesthesia	192	78.05%
Overall you Preferred General to Spinal Anaesthesia	34	13.82%
Recommend Spinal Anaesthesia to friends	190	77.24%
You will accept Spinal anaesthesia in future surgery	208	84.55%
Patients who had previous GA& experience But now preferred SA**	114	90.5%
Previous GA* experience but still preferred GA*	12	9.5%

* GA General Anaesthesia ** Spinal Anaesthesia

awake to see, touch and kiss the child at birth were the greatest sources of satisfaction in 95.12% of cases. About 90.5% patients with previous general anaesthesia experience now preferred SA to general anaesthesia while 9.5% still preferred general anaesthesia.

DISCUSSION

Failed endotracheal intubation and aspiration of gastric contents are the two major causes of maternal mortality associated with general anaesthesia and the main reasons why general anaesthesia is no longer popular for caesarean delivery (Okafor and Ezegwui 2009; Acog, 1996; Wadlington et al, 1998). In SA the patient is awake and thus avoids the need for intubation. It is associated with a better childbirth experience, better postoperative pain control and lower maternal mortality. We used the comparative pain scale (Alice 12/08 last update) to assess the intensity of pain perceived by our patients. Forty (16.25%) women had no pain during caesarean delivery while 0.81% had very intense pain. Majority (45.5%) of the patients had very mild pain while others had discomforting pain (6.50%), tolerable pain (17.07%), distressing pain (6.50%) and very distressing pain (4.07%). No patient had excruciating pain. Shivering (34.15%), headache (42.28%) and lower limb numbness more than 12 hours (48.78%) were the common side effects of SA in this work. Others side effects include nausea and vomiting (7.32%), and back pain (19.51 %). A Cochrane Database review confirmed these low rates of side effects in SA (Ng et al 2004). Life-threatening complications like total spinal anaesthesia and meningitis did not occur in our study.

The satisfactions with SA were very high. Patients being awake to see, touch and kiss the baby at birth were the greatest sources of satisfactions in 95.12% of the patients. About 78.05% of the patients preferred SA to GA; and 84.55% will accept SA in future surgeries while 77.24% will recommend SA to friends (Table 4). Among patients who experienced both SA and general anaesthesia, 90.5% preferred SA to general anaesthesia.

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