ORIGINAL ARTICLE

Acceptability of Epidural Analgesia for Pain Relief During Labour among Kelantanese Women

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Summary

Three hundred and five primigravid women were interviewed at term to assess the acceptability of epidural during labour, and reasons for the decisions. Data was collected on a prestructured proforma which consisted of background information, socio-economic status, knowledge about epidural analgesia, source of information and reasons for choice. Of the 305 patients only 17.3% were willing to receive epidural analgesia. This group consisted of 56.6% non-Malay women. Those employed in professional or skilled jobs (56.6%) also readily consented for epidural. Nearly half the women willing for epidural had received college (tertiary) education (43.3%) and more than a quarter (26.4%) were over 30 years of age. The majority of those who were unwilling had no prior knowledge about the procedure, and refused either out of fear, ignorance, resistance from husbands, on religious grounds or following poor feedback from friends. In order to advocate epidural analgesia, knowledge has to be targeted to the relatively less educated, unemployed women, mainly through the media or personally in the antenatal clinic by doctors and nurses. Services have to be improved as substandard analgesia may send out wrong messages and actually do more harm than good.

Key Words: Epidural analgesia, Labour, Pain relief

Introduction

Regional analgesia was first used in obstetrics in Europe at the turn of the century[1]. In the 1960s, continuous lumbar epidural analgesia was offered sporadically in labour in the UK, and is currently being offered in most large units as a safe method of pain relief during labour[2].

It is generally accepted that epidural analgesia provides safe and effective pain relief and does not prolong or interfere with the normal progress of labour[3]. It may shorten the first and second stages of labour, improving both the strength and frequency of uterine contractions[4,5]. It is said to induce beneficial changes in the foetus, delay onset of acid base deterioration in prolonged labour and improve foetal circulation[6]. The complication rate is fairly low and consists mainly of hypotension, shivering, inadvertent dural puncture, unsatisfactory block and backache[7].

In view of the benefits far overweighing the risk, an epidural service was set up at the labour room in Hospital Kota Bharu in February 1993. However, failure to obtain consent for the procedure was noted to be a major problem.

This study, the first of its kind in this setting, has been thus carried out with two objectives:

(a) to determine the knowledge and acceptability of epidural analgesia among primigravid women in Kelantan (a North Eastern Malaysian State) and
(b) to elicit the reasons for acceptance or rejection of the procedure.

Materials and Methods

Three hundred and five consecutive primigravid women at term pregnancy were interviewed at the antenatal clinic of Hospital Kota Bharu, Kelantan over a period of one month. They were offered the option of epidural analgesia during labour, and were informed about the advantages and complications of the procedure. For purposes of analysis, they were divided into two groups – those who consented for the procedure (willing) and those who refused consent (unwilling). These two groups were compared in terms of background data – race, age and type of family, whether joint or nuclear. Socio-economic status was compared using the parameters of education, occupation and income – broadly classified into those whose combined family income was less or greater than RM500 per month. The women were asked whether they had any prior knowledge of the procedure, but depth of knowledge was not assessed. Those who replied in affirmative were queried as to the source of information. Finally, they were asked the reason for accepting or rejecting epidural analgesia during labour.

The data was collected on prestructured proformas with information obtained through a cross sectional survey conducted by individual interviews by the authors. Analysis was done using X^2 (Chi-square) test, and $p < 0.05$ was taken as significant.

Results

Only 17.3% (53/305) consented for epidural analgesia. Women over the age of 30 years were more likely to consent to epidural than those under 30 (14/41 Vs. 39/264, $p = 0.005$). More Malay women were unwilling than those from the other races (199/212 Vs. 53/95, $p < 0.001$). The type of family, whether joint or nuclear, did not appear to have much bearing on the decision ($p = 0.345$).

Table I shows the socio-economic status of the women among the two groups. Women who had tertiary education were more willing for the epidural than those who had no education or only primary education (30/67 Vs. 23/238, $p < 0.0001$).

The nature of employment also influenced the decision. Significantly more women who were employed in skilled or professional jobs opted for epidural than those who were either unemployed or were doing unskilled jobs (30/70 Vs. 23/235, $p < 0.0001$). There was no significant difference among the groups in terms of combined family income.

It was noted (Table II) that significantly more women who had prior information about epidural analgesia consented for the procedure than those who did not have any knowledge (32/95 Vs. 21/210, $p < 0.0001$).

The source of information did not have any significant impact on decision to accept or refuse epidural (Table II).

Finally the women were queried about the reason for their decision. Among those who were willing, the commonest reason given by 66% was to decrease pain, or because they had heard that labour was painful and were afraid of the pain, while 26.4% said they wanted to try something new, or gain new experience. Only 7.6% said their friends had a good experience with epidural analgesia during labour, and were thus motivated to accept it. The reasons for refusing are outlined in Table III.

Table I
Consent rate in relation to socio-economic status

Variable	Consent rate (%)	
Education		
Nil/Primary	23/238	(9.6)*
College	30/67	(44.7)
Occupation		
Unemployed/unskilled	23/245	(9.4)*
Skilled/Professional	30/70	(42.8)
Income (RM)		
<500 PM	25/178	(14.0)
>500 PM	28/127	(22.0)

* $p < 0.0001$
$p < 0.1$

Table II
Consent rate in relation to prior knowledge/ Source of information

Variable	Consent rate (%)	
Knowledge		
Yes	32/95	(33.6)*
No	21/210	(10.0)
Source		
Doctors/Nurses	9/25	(36.0)
Friends	7/52	(32.6)
Media/Magazines	6/18	(33.3)

* $p < 0.0001$

Table III
Reasons for refusal

	Number	%
To experience pain	68	(27.0)
Fear	59	(23.4)
Religious	45	(17.9)
Ignorance	32	(12.7)
Husband unwilling	20	(7.9)
Bad feedback	21	(8.3)
Try next time	7	(2.8)

Discussion

Despite the fact that contemporary lumbar epidural analgesia is considered effective, provides excellent sensory and minimal motor block and has unequivocal benefits on foetus and mother[6,8], only 17.3% of the women interviewed were actually willing to try out the procedure. Few studies have reviewed the acceptability of epidural analgesia during labour among other populations. Reynolds[2] from St. Thomas Hospital, London quotes an epidural analgesia rate of 40%, while a 1990 report from Uppsala, Sweden[9] has stated that nearly all their parturients received some form of analgesia, the epidural rate being 0 - 40% depending more on the size of the unit and staffing than on the ethnic mix of the population or other maternal factors.

We have selected only primigravidae in this study in order to eliminate the bias resulting from previous delivery, previous use of other forms of analgesia during labour and to target the group who would justifiably require epidural analgesia since primigravid labours are expected to last longer than multiparous ones.

It was noteworthy that there was a distinct difference in age and race among the two groups. More primigravidae over 30 years of age and from the non-Malay group were willing for epidural analgesia. Considering that over 90% population in this state is Malay, it could be worthwhile to go into their reasons for refusal.

Significantly more women who were willing to try epidural analgesia in labour were employed in professional or skilled jobs and had received tertiary (college) education (Table I). This group may have been more receptive to the idea in view of better information, or maybe more willing to "experiment" with something new, proven to be safe. More of those who have not received formal education appear to hold on to traditional beliefs regarding pain as a necessary part of childbirth (Table III). Since no other studies have studied this data, we cannot compare our results with those of other populations.

It is understandable that those who had previous knowledge about epidural analgesia consented for the procedure whereas 75% of those unwilling had never heard of it before (Table II). Over half the respondents in both groups had obtained information from friends, and some of the feedback was evidently discouraging (Table III). Doctors and nurses contributed to about one-fourth of the information providers, while little contribution came from magazines and media. Once the anaesthesiologist is convinced about the advantages of epidural analgesia in labour, and adequate facilities for offering the service on a large scale are available, efforts should be made to provide accurate information to patients personally, or via the mass media.

While the reasons for majority of those willing to try epidural are straightforward, it is more important to

look at the reasons given by those who were unwilling (Table III). Acceptable reasons were to experience the pain this time, try out their own threshold and to try during subsequent delivery if required. Convincing those who believe that this is a religious issue (17.9%), that pain is given by God and must be borne, or those who face resistance from husbands and families (7.9%), may be difficult. Efforts should be targeted towards the group who have refused because of fear of side effects, complications, not knowing when to push (23.4%) or not understanding the procedure (12.7%). Negative feedback or bad experience of friends is a serious issue, as it has been repeatedly stressed that while well-conducted epidural analgesia has advantages for the mother and baby. An epidural poorly executed by an inadequately trained anaesthetist and badly maintained with imperfect backup can be disastrous[2,6].

It may be better to have no epidural service, rather than one that is poorly supervised, since it is easier to introduce this as a new concept that is good, rather than try to change the opinion of those who feel it is ineffective or unsafe.

In summary, if epidural analgesia in labour is to be advocated for our population, it must be done when we have adequate facilities for administration and back up. Knowledge about this procedure has to be particularly targeted to the relatively less educated and unemployed women, mainly through the media and by medical or paramedic staff in the antenatal clinics. Besides, services have to be improved so that prospective parturients do not become demotivated by bad experience of friends – this substandard analgesia may actually do more harm than good.

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