

# Epidural use during childbirth at the RIPAS hospital in Brunei

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## Abstract

Epidural analgesia is a commonly employed technique of providing pain relief during labour. Despite the high delivery rate in RIPAS Hospital the use of epidural analgesia is limited compared to Western nations where it ranges from 25 – 50%. We analysed the epidural figures of RIPAS hospital retrospectively for the year 2008 using descriptive statistics to look into the indications, complications, outcome and awareness to identify methods to increase the use of epidural analgesia. The number of patients who opted for the use of epidural was only 1.4% of the patients who were admitted in labour ward, RIPAS Hospital in the year 2008. Majority of the users were primigravidae (51%) and the main indication was pain. Our study showed an increase in both caesarean (26.5% vs. 15.2%) and instrumental delivery (7.8% vs. 1.5%) rates compared to patients who did not undergo epidural. It is proposed that more information on epidural use be given to women antenatal checks.

**Keywords:** *Childbirth, Epidural analgesia, Brunei Darussalam*

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## 1. Introduction

Epidural analgesia is a commonly employed technique of providing pain relief during labor. The number of parturients given intrapartum epidural analgesia is reported to be around 25% in UK to >50% in many institutions in the United States [1, 2]. The procedure has few contraindications, the primary ones being patient refusal, maternal haemorrhage and coagulopathy. Induction of epidural analgesia in early labor remains controversial. However, many physicians induce analgesia as soon as the diagnosis of active labor has been established and the patient has requested pain relief. Retrospective studies have demonstrated an association between epidural analgesia and increases in the ideal duration of labor, instrumental vaginal delivery and caesarean section for labor [3-5]. However, several recent prospective studies have concluded that epidural analgesia does not adversely affect the progress of labor or increase the rate of caesarean section [6,7]. These re-

main controversial issues among practicing physicians. The most common complications occurring with epidural analgesia are maternal hypotension and postdural puncture headache [8,9]. Epidural analgesia became available round the clock in RIPAS Hospital labour room in 2007. But despite the high delivery rate in RIPAS Hospital the use of epidural analgesia is limited.

This study analysed epidural usage statistics at RIPAS hospital to look into the common indications, complications, outcome and awareness of epidural availability. This was done to identify methods to increase the use of epidural analgesia in RIPAS Hospital, Brunei

## 2. Materials and Methods

In this retrospective study, labour room records were analysed for the year 2008 to identify the women who had undergone epidural analgesia during labour. Then information was collected from epidural register and case notes. Awareness of the use of epidural analgesia among the women was obtained from records maintained by anaesthetists. Data was collected regarding the parity, mode of delivery, duration of labour, indications for epidural, awareness, satisfaction and complications. Time between decision and insertion of epidural was also analysed.

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### 3. Results

The total number of cases where epidural was used was 64 out of 5051 deliveries that occurred in RIPAS Hospital in the year 2008. When the number of elective caesareans (n=390) were excluded this was a very low 1.4%. Only 8 patients had antenatal knowledge of the epidural analgesia out of which 4 were medical staff. 51% of the epidural users were primigravidae and 41% were gravida 2-4. Only 8% were >gravida 5. All the epidurals were inserted in the 1st stage of labour. Pain accounted for 70% (n=45) of the indications while only 30% (n=19) were due to maternal requests. Among the 19 maternal requests, 11 were primigravidae, 7 were gravida 2-4 and only 1 was >gravida 5. Among the 45 women who requested epidural due to pain, 22 were primigravidae, 19 were gravid 2-4 and only 3 were >gravida 5. In 69% (n=44) the time taken between decision and insertion of epidural was between 30 minutes to 1 hour. Twelve percent (n=8) took more than 1 hour. Forty two patients delivered normally, while 5 had instrumental deliveries and 17 had to undergo caesareans. All the instrumental deliveries and 12 of the caesareans were primigravidae. Five caesareans had to be done in the gravida 2-4 group. All the >gravida 5 delivered spontaneously. More than 95% of the patients were satisfied with the procedure with only 2 reporting unilateral blocks and 1 patient had nausea. One procedure had to be abandoned due to dural tap. The mean duration of labour in primigravidae who were given epidural was 5 hrs 38 minutes (range from 45 minutes to 10 hours 43 minutes) which was not increased compared to textbook statistics. But the incidence of emergency caesareans (26.5%) and instrumental deliveries (7.8%) was raised compared to the patients who did not have epidural analgesia (15.2% and 1.3% respectively).

### 4. Discussion

Despite the high number of deliveries in RIPAS Hospital, Brunei, the 1.4% use of epidural analgesia contrasts with countries like UK and USA where it ranges from 25-50%. The reason could be poor awareness among the public and lack of antenatal counselling on epidural use in Brunei. Fifty one per cent of the epidural users in Brunei were primigravidae and 41% were gravida 2-4. Only 8% were >gravida 5. The majority of indications in our study were due to pain (70%). The complications

were negligible in our series. The duration of labour was not increased in primigravidae when compared to the ideal Friedman's curve. The increase in caesarean rate could be attributed to the small number of cases who had undergone epidural analgesia. The increase in instrumental deliveries is expected according to international literature. The limitation of our study has been the small number of epidural cases that did not permit detailed statistical analysis.

To improve the situation in Brunei, stress should be laid on imparting knowledge of epidural use to women during antenatal checks e.g. through the use of brochures. Currently, a questionnaire has been developed and will be used to assess patient attitudes to epidural analgesia and also to determine cultural and socio-economic influences on its use.

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