Shoulder Dystocia : Fifteen Years' Experience in Ramathibodi Hospital

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Abstract

Although shoulder dystocia does not occur frequently the adverse effect to the patient and especially to infants can be catastrophic. The purpose of this study was to evaluate the incidence, the factors which may be related to or predispose to this condition and the consequence to the patients and their infants. All cases of shoulder dystocia which occurred during the fifteen year period from January 1982 to December 1996 were scrutinized. There were 17 cases of shoulder dystocia from a total of 109,923 deliveries giving the incidence of 1.6 per 10,000 deliveries. Of these 17 patients, 11 (65%) were delivered by vacuum extraction. Two patients had postpartum hemorrhage requiring blood transfusion. Infants' birthweights ranged between 3350 to 5160 grams. Erb's palsy occurred in 6 infants and all made full recovery subsequently.

Although shoulder dystocia is an uncommon complication of delivery with a suspected incidence of 0.15 per cent to 0.7 per cent[1-3]. It is associated with a relatively high morbidity rate of 16 per cent to 48 per cent[4,5] with potentially devastating outcome.

The risk factors for shoulder dystocia are often associated with macrosomia (birth weight of > 4000 g), multiparity, previous macrosomic infant, and obesity. Diabetes carries a twofold risk of shoulder dystocia due to a combination of macrosomia and altered body configuration[6,7]. Prolonged second stage of labour and midforceps delivery (alone and in combination)[5], as well as protraction and arresting disorders[8], have also been identified as clinical findings of shoulder dystocia.

This report was our experience with shoulder dystocia during a 15-year period. Management of shoulder dystocia and its outcome were analysed.

MATERIAL AND METHOD

A retrospective study was conducted on 109,923 vaginal deliveries at Ramathibodi Hospital

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from January 1982 to December 1996. All antenatal records and labour summaries were reviewed and those with shoulder dystocia were extracted for further study. The records were then analysed for maternal weight, infant weight, prenatal care, weight of previous infants, maternal physical characteristics, partogram of labour, intrapartum complications, type of delivery, duration of pregnancy, and infant follow-up.

RESULTS

There were 17 cases of shoulder dystocia out of 109,923 deliveries, giving an incidence of 1.6 per 10,000 deliveries or 0.02 per cent. Maternal gain in weight ranged from 7 to 18 kilograms. Maternal heights ranged from 142 to 164 centrimeters.

Infant weights : There were 7 primigravid patients whose infants weighed 3350, 3710, 3870, 3900, 3960, 4050 and 4080 grams and 10 multiparous patients whose infants weighed 3700, 3840, 3980, 4050, 4120, 4200, 4400, 4540, 4900 and 5160 grams respectively. There was no history of shoulder dystotic from previous pregnancies in all multiparous cases and the dystotic infants were larger than the previous deliveries.

Partogram of labour : There were 13 cases with the deceleration phase of labour between 8 to 10 cms dilatation of over a 2 hour period.

Intrapartum complications : There was one stillborn infant which weighed 4050 grams and there were two cases of postpartum hemorrhage due to uterine atony which required a blood transfusion. Eleven cases were delivered by vacuum extraction.

Duration of pregnancy : In two of the cases the duration of pregnancy was greater than 41 weeks. In these cases, the average infant weight was 4070 grams.

Follow-up of six months : Six infants were thought to have Erb's palsy but no permanent paralysis has been recorded.

DISCUSSION

Acker et al[8] have determined protraction and arrest disorders of labour to be significantly associated with shoulder dystocia. Likewise, Benedetti and Gabbe[5] have also identified prolonged second stage combined with midforceps delivery as an intrapartum risk factor. Our study found the incidence of combined prolonged second stage with vacuum extraction to be considerably more common. This is because in recent years the use of vacuum extraction has gained more popularity over the forceps.

Macrosomia is a well documented risk factor for shoulder dystocia[9,10]. In this study macrosomia was found to be associated in 53 per cent of cases.

The infant morbidity rate of 35 per cent was consistent with other reports[4,5].

Shoulder dystocia is a rare complication of labour that most obstetricians encounter infrequently. Management of shoulder dystocia is therefore often base on cumulative experience. A high index of suspicion should be maintained in the presence of certain clinical symptoms, such as prolonged deceleration phase of labour of over 2 hours and prolonged second stage combined with instrumental delivery. The optimum method of treating shoulder dystocia once it happens remains debatable[2]. Many methods have been described such as the McRoberts maneuver, the Woods screw maneuver and the posterior arm extraction and the question of superiority is clouded by the undeniable fact that no clinic has had enough patients to statistically evaluate a given approach. Thus, the greatest current emphasis must be on prevention and identification of risk factors anticipated.

(Received for publication on March 25, 1998)

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ภาวะทารกติดไหล่ระหว่างการคลอดในโรงพยาบาลรามาธิบดี ปีพ.ศ. 2525 ถึง พ.ศ. 2539

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ภาวะทารกติดไหล่ระหว่างการคลอดเป็นผลแทรกซ้อนที่พบได้ไม่บ่อยในการดูแลการคลอด แต่มีภาวะทุพพลภาพต่อทารกสูง การศึกษานี้มีวัตถุประสงค์ที่จะศึกษาถึงอุบัติการของการเกิดภาวะทารกติดไหล่ระหว่างการคลอด ลักษณะของผู้คลอด ลักษณะกราฟของการคลอด น้ำหนักแรกคลอดของทารก และภาวะแทรกซ้อนของทารกหลังคลอด โดยการศึกษาย้อนหลังในมารดาที่คลอดที่โรงพยาบาลรามาธิบดี ตั้งแต่เดือนมกราคม พ.ศ. 2525 จนถึงเดือนธันวาคม พ.ศ. 2539 พบอุบัติการของภาวะทารกติดไหล่ระหว่างการคลอด 17 ราย ต่อการคลอด 109,923 รายหรือเท่ากับ 1.6 ต่อการคลอด 10,000 ราย คลอดโดยใช้เครื่องดูดสูญญากาศ 11 ราย ผู้คลอดตกเลือดหลังคลอดและต้องให้เลือดทดแทน 2 ราย น้ำหนักแรกคลอดของทารกอยู่ระหว่าง 3350 กรัม ถึง 5160 กรัม พบภาวะ Erb's palsy ในทารกแรกคลอด 6 ราย แต่สามารถกลับคืนสู่ภาวะปกติได้ในเวลาต่อมา

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