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Bandl's Ring in a Pregnancy Complicated by Macrosomia and Systemic Lupus Erythematosus.

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BACKGROUND

Bandl's ring is a rare pathological constriction of the myometrium that forms between the upper and lower uterine segments as a result of dystocia, affecting 1 in 5000 births¹. It was first described by Ludwig Bandl in the 19th century, but our understanding of its aetiology, pathophysiology and management has not significantly improved over the last century². When diagnosed at caesarean section it may cause entrapment of the fetal head or shoulders, causing infant mortality in more than 50% of cases, as well as possibly brachial plexus injury or traumatic head injury, leading to cerebral palsy in the long-term³.

CASE

AP is a 36 year old nulliparous woman who had induction of labour at 39 weeks gestation for macrosomia (abdominal circumference on the 99th centile) on a background of systemic lupus erythematosus (SLE). She did not require cervical ripening. She had induction of labour with artificial rupture of membranes and IV Syntocinon. Approximately 9 hours later she experienced fetal distress, with a tachycardic cardiotocograph and a fetal scalp lactate of 4.7 at 4cm cervical dilatation, so underwent emergency caesarean section.

At the time of hysterotomy, a Bandl's ring was noted. The fetal head was delivered easily, but delivery of the body was severely restricted. Initial attempts to release the shoulders were unsuccessful. The posterior shoulder was eventually delivered after multiple T-incisions, approximately 3 minutes after delivery of the head. Tocolytics were not administered. The remainder of the operation was complicated by uterine inversion, quickly corrected, during delivery of the placenta, and post-partum haemorrhage of 1200mL. A live female infant was delivered, not requiring resuscitation, and with no evidence of brachial plexus injury.

DISCUSSION

Bandl's ring is a rare, dangerous, and poorly understood cause of dystocia. Little is known about what factors predispose toward or predict the development of Bandl's ring, nor even whether it ought to be considered a cause or an effect of dystocia^{1,2}. Future case series may be able to discern if some of the factors present in this case (such as macrosomia, SLE, induction of labour or prolonged first stage) are risk factors for the development of Bandl's ring. Increased awareness and training in managing this complication is required⁴.

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