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The Journal of Obstetrics and Gynaecology

Journal of Obstetrics and Gynaecology

ISSN: 0144-3615 (Print) 1364-6893 (Online) Journal homepage: informahealthcare.com/journals/ijog20

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To cite this article: J. Melendez, V. Forson & W. Yoong (2009) Re: Mahran MA, Sayed AT, Imoh-Ita F. Avoiding over diagnosis of shoulder dystocia. Journal of Obstetrics and Gynaecology2008;28(2):173–176, Journal of Obstetrics and Gynaecology, 29:1, 78-79, DOI: 10.1080/01443610802499474

To link to this article: https://doi.org/10.1080/01443610802499474

Published online: 02 Jul 2009.

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Journal of Obstetrics and Gynaecology, January 2009; 29(1): 78–79

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LETTER TO THE EDITOR

Re: Mahran MA, Sayed AT, Imoh-Ita F. Avoiding over diagnosis of shoulder dystocia. Journal of Obstetrics and Gynaecology 2008;28(2):173–176

J. MELENDEZ, V. FORSON & W. YOONG

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Dear Sir,

We read with interest Mahran and colleagues' (2008) article on 'Avoiding over diagnosis of shoulder dystocia'. Shoulder dystocia (SD) is currently defined by the Royal College of Obstetricians and Gynaecologists (RCOG) as 'a delivery that requires additional manoeuvres to release the shoulders after gentle traction has failed' (RCOG 2005). We would disagree with Mahran that applying the RCOG diagnostic criteria may improve the diagnosis of SD as this definition is imprecise and is subject to accoucher bias. In fact, both O'Leary (1992) and Christoffersson (2003) described the dilemma of SD being diagnosed when 'standard delivery procedures of gentle downward traction of the fetal head and moderate fundal pressure fail to accomplish delivery' as clinicians may have different understanding of the terms 'gentle' and 'moderate'. A more objective classification has been proposed by the American College of Obstetrics and Gynecology, which is based on the complexity of the manoeuvres required to overcome the dystocia (Olugbile and Mascarenhas 2000).

We would like to share the findings of our recently published retrospective study (Melendez et al. 2008) in which we compared 22 babies who sustained brachial nerve paralysis or skeletal fractures following severe SD (requiring admission to Special Care Baby Unit) with a control group ($n = 22$, matched for parity and ethnicity), which comprised the next infant delivered who was also deemed to have SD but did not suffer significant birth injuries. Our data showed that neonatal brachial plexus and bony injuries were more likely to occur in mothers with a history of gestational diabetes, previous babies >4 kg, clinical macrosomia and instrumental delivery. The median birth weight and postnatal anthropometric measurements, such as head circumference and ponderal indices, were significantly higher in the index group compared with those in the controls. Higher ponderal indices in the study group suggest that asymmetric babies with a greater weight to length ratio were more likely to sustain brachial plexus and bony injuries, and our study appears to be the first to document this finding.

Screening and indeed predicting SD in the antenatal period is difficult, and SD is likely to remain an unpredictable event with no reliable way of anticipating the severity of the outcome. Fetal abdominal circumference measurements of >35 cm can be used to identify more than 90% of macrosomic infants although this method has shown a low positive predictive value in detecting specific cases of SD (Jazayeri et al. 1999). The use of fetal computerised tomography (CT) and magnetic resonance imaging (MRI) to measure shoulder to head ratios as well as biacromial distances show promise in identifying potential cases of severe SD especially in mothers with identifiable risk factors (Kitzmiller et al. 1987; Kastler et al. 1993). Obviously, further research in larger controlled trials is still needed to determine their predictive value.

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ISSN 0144-3615 print/ISSN 1364-6893 online © 2009 Informa Healthcare USA, Inc.
DOI: 10.1080/01443610802499474

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