

## A STUDY OF WOMEN WITH PREVIOUS OBSTETRIC ANAL SPHINCTER INJURY (OASI) – MODE OF DELIVERY OF A SUBSEQUENT PREGNANCY

### Hypothesis / aims of study

In 2004 we performed a pilot study of women with a history of obstetric anal sphincter injury (OASI). This is a follow on review of a larger group of women, looking at results of endoanal ultrasound (EAUS) and anorectal physiology data (ARP) as factors influencing the mode of delivery of a subsequent pregnancy.

### Study design, materials and methods

Between November 2001 and December 2006 all women with previous OASI were offered EAUS and ARP studies. In a subsequent pregnancy they were seen and counselled in a specialised antenatal clinic, where mode of delivery of the pregnancy was discussed, taking into account symptoms, investigation results and patient choice. Asymptomatic patients with normal EAUS and ARP were advised of the suitability of a vaginal delivery. (1, 2)

### Results

221 women with OASI having had EAUS and ARP were identified. Of these women, 80 had since delivered a baby in our Maternity Unit. Out of these 80 women, 29 women (37%) had normal EAUS/ARP results and 51 women (63%) had some abnormality in the form of either a defect seen in the internal or external anal sphincter, or low resting/squeeze pressures on ARP.

Of the 29 women with normal results, 15 (52%) chose to have an elective caesarean section, 1 (3%) had an emergency caesarean section, and 13 (45%) had a vaginal delivery. In the elective caesarean group, 2 complained of perineal pain and 1 had minor flatal incontinence. All others were asymptomatic.

Of the 51 women with abnormal results, 35 (68%) had an elective caesarean section, 4 (8%) had an emergency caesarean section and 12 (24%) had a vaginal delivery.

	Vaginal Delivery	Caesarean 55 (69%)	
		Elective Caesarean	Emergency Caesarean
Normal EAUS/ARP 29 (37%)	13 (45%)	15 (52%)	1 (3%)
Abnormal EAUS/ARP 51 (63%)	12 (24%)	35 (68%)	4 (8%)
Total 80 (100%)	25 (31%)	50 (63%)	5 (6%)

Table 1. Mode of subsequent delivery in women with OASI

In total, 25 women had a vaginal delivery. None required an instrumental delivery, and none sustained a further OASI. 7 had an intact perineum, 2 required episiotomy, and the remaining 16 had a second degree tear.

### Interpretation of results

In this study group, only one third of women had normal EAUS and ARP after primary repair of an OASI.

Overall, one third of women had a vaginal delivery, and two thirds had a caesarean section. The pilot study had shown that one quarter of women had a vaginal delivery, and three quarters had a caesarean section. Half of women with normal EAUS/ARP chose to have an elective caesarean section. This confirms the findings from the pilot study

One quarter of women with abnormal EAUS/ARP chose to deliver vaginally. In the pilot study, all women with abnormal EAUS/ARP chose to have an elective caesarean section.

In our series, it does not seem that a previous OASI increases your chance of a further OASI.

### Concluding message

We find EAUS and ARP useful in counselling women regarding mode of delivery in a subsequent pregnancy following OASI.

### References

1. Third degree obstetric anal sphincter tears: risk factors and outcome of primary repair. *BMJ* 1994;308:887-891
2. Effect of second vaginal delivery on anorectal physiology and faecal continence: a prospective study *The Lancet* 1999;354:983-986

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**HUMAN SUBJECTS:** This study did not need ethical approval because No ethical approval required and did not follow the Declaration of Helsinki - with approval by the ethics committee - in the sense that No ethical approval required Informed consent was not obtained from the patients.