

Short Communication

An anonymous survey of registrar training in the use of Kjelland's forceps in Australia

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Large series suggest that, when used with appropriate care and skill, rotational deliveries with Kjelland's forceps are a safe and useful procedure. We surveyed obstetric trainees in Australia to assess their experience with, and intentions to use, Kjelland's forceps. The response rate was 65%, and it was uncommon for even senior trainees to have performed more than ten Kjelland's forceps rotations during their training. Ninety-four per cent of final-year trainees stated they did not intend to use Kjelland's forceps in their consultant practice.

Key words: Kjelland's forceps, instrumental delivery, training, survey.

Introduction

The use of Kjelland's forceps for rotation and delivery of the fetal head from transverse and posterior positions is now uncommon.¹ Although there are doubtless many reasons for this, it is likely to reflect the limited opportunity that more recently trained obstetricians have had to gain experience in their use. A similar phenomenon has been noted with vaginal breech delivery.² Despite the 'bad press' that the use of Kjelland's forceps has prompted over the years,³ larger series have drawn attention to their safety in skilled hands.⁴⁻⁷ A plea has been made that 'obstetricians who possess the skill of Kjelland's forceps delivery should impart this skill to the next generation before it is lost'.¹ In view of this, we set out to quantify the training provided in rotational forceps delivery to the current cohort of registrars.

Methods

A one-page survey was developed to assess obstetric trainees' levels of experience in, and confidence with, complex vaginal delivery. One component of the survey related to Kjelland's forceps delivery. The survey asked respondents to identify their current training level (years 1 to 6), as well as their intention to practise obstetrics once qualified as a specialist. Three questions relating to experience with Kjelland's forceps were posed:

- 1 How many Kjelland's forceps rotational deliveries have you personally performed during your training to date?
- 2 Do you feel that you have received sufficient training and experience to confidently undertake Kjelland's forceps rotational delivery? (yes, no, or not yet).
- 3 In your future specialist practice, would you intend to undertake Kjelland's forceps rotational delivery? (yes, no, or not sure).

The survey was included with a covering letter detailing the background to and intentions of the study, and a prepaid return envelope. As the survey was anonymous, non-responders could not be identified. The study protocol was approved by the Human Research Ethics Committee of the Australian National University, and was approved for distribution to trainees by the Continuing Professional Development Committee of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists.

Results

Survey forms were posted to all 303 registered Australian trainees from July to August of 2006. A reminder e-mail was sent three months after initial distribution. A total of 197 replies were received by 6 March 2007, a response rate of 65%. One hundred and seventy-nine respondents (91%) reported an intention to practise obstetrics once they received specialist certification. Response bias is always a potential issue with any survey of this nature, but the sampling proportions (75% of first-year trainees, 63% of second years, 55% of third years, 62% of fourth years, 72% of fifth years and 73% of final years) suggest that the surveys are representative.

The results are summarised in Table 1. In response to the question asking the number of Kjelland's rotations performed by junior (years 1 to 4) trainees, 33 of 42 first years (79%) reported no such deliveries, falling to ten of 38 (26%) among fourth year trainees. However, the median number of Kjelland's deliveries reported by fourth years was only 2, with 12 respondents (32%) reporting having performed five or more such deliveries.

Of the 41 respondents from years 5 and 6 of training, nine (22%) reported not having performed a Kjelland's delivery, and only four (less than 10%) had performed ten or more such

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Received 3 July 2009; accepted 8 July 2009.

Table 1 Responses to registrar survey questions

Training level	n	Number of Kjelland's deliveries			'In your future specialist practice, do you intend to perform Kjelland's forceps deliveries?'		
		0	1–4	≥ 5	Yes	No	Not sure
Year 1	42	33 (79%)	8 (19%)	1 (2%)	9 (21%)	9 (21%)	24 (58%)
Year 2	39	24 (62%)	11 (28%)	4 (10%)	9 (23%)	16 (41%)	14 (36%)
Year 3	36	12 (33%)	14 (39%)	10 (28%)	8 (22%)	22 (61%)	6 (17%)
Year 4	38	10 (26%)	16 (42%)	12 (32%)	5 (13%)	25 (66%)	8 (21%)
Year 5	23	4 (17%)	12 (52%)	7 (31%)	3 (13%)	17 (74%)	3 (13%)
Year 6	18	5 (28%)	9 (50%)	4 (22%)	1 (6%)	17 (94%)	0 (0%)

deliveries. The median number of Kjelland's forceps rotations reported by this group was also only 2. Two respondents (5%) stated they were 'confident' with Kjelland's rotations, and 33 (80%) stated that they were not (six respondents (15%) answered 'not sure'). When asked if they intended to perform Kjelland's rotational deliveries once qualified as specialists, only four respondents (10%) answered 'yes'.

When the responses to the question 'Do you intend to perform Kjelland's forceps deliveries in your future specialist practice?' were considered by year of training, the proportion answering 'no' increased in each level of training, from 21% of year one trainees to 94% by year 6.

Discussion

The rate of caesarean birth continues to rise, and as a consequence trainees are likely to receive dwindling exposure to complex vaginal birth. Challenging vaginal deliveries such as those required for vaginal breech, twin and rotational births could be argued to represent a pinnacle of obstetric skill. As vaginal delivery in these situations is increasingly abandoned, resort to caesarean section has obvious immediate and downstream effects for the woman and her family, and indeed the health system. This study provides some confirmation of an impression that trainees and more recently qualified obstetricians lack the opportunity to acquire and gain confidence in complex vaginal delivery. Similar findings have been noted for vaginal breech delivery² and surveys suggest that many obstetricians are unwilling to manage vaginal twin deliveries unless both fetuses are cephalic and near term.⁸

Concerns about the rate of caesarean birth in Australia and overseas regularly prompt calls for action. Although dystocias associated with occipito-transverse and occipito-posterior malpositions are likely to represent only a modest proportion delays in the second stage, in many cases caesarean section is performed at full dilatation, an intervention that can be highly morbid.⁹ Perhaps the most important strategy for managing the caesarean section rate is to avoid primary caesarean deliveries. By ensuring that obstetric trainees have confidence and skill in complex vaginal delivery, a sizable proportion of primary caesarean deliveries might be avoided with a flow-on reduction in repeat elective surgical deliveries.

There is no doubt that rotational delivery with Kjelland's forceps requires a great deal of care and skill, but when

performed by experienced obstetricians the outcomes are good.^{4–7} There are still many obstetricians who maintain their expertise in complex vaginal birth, but the numbers are decreasing and it seems likely that skills that were once routinely employed will disappear. A survey of training in rotational forceps deliveries for Australian registrars conducted a decade ago showed that few received any training in the use of Kjelland's forceps then.¹⁰ The situation is considerably worse now. In another ten years, there may well be nobody left with the requisite experience, and Kjelland's forceps will be left in the birth suite cupboard permanently.

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