

Are Kielland's Forceps a Safe Option for Birth?

Dawn Parris, Dimitrios Siassakos

University College London EGA Institute for Women's Health, London, UK

Correspondence:

Dimitrios Siassakos. University College London EGA Institute for Women's Health, London, UK.

Email: jsiasakos@gmail.com

Are Kielland's Forceps a Safe Option for Birth?

Kielland's rotational forceps deliveries often divide opinion. Love or hate them, as many maternity professionals do, what does the current evidence say?

The aim of the meta-analysis by Giacchino et al was to estimate the risk of maternal and neonatal complications following Kielland's births more accurately, when compared with rotational ventouse, non-rotational forceps birth and second stage caesarean section. The authors included 13 observational studies, all published after 2000 to reflect current practice and reported meta-analyses using a random-effects model to allow for clinical heterogeneity.

Unsurprisingly, the authors found that Kielland's births had lower rate of post-partum haemorrhage and of a low 5-minute Apgar score compared to second-stage caesarean. When the cervix is fully dilated, a caesarean has been yet again shown not to be the best 'way out', except when it becomes the only 'way out'

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process which may lead to differences between this version and the [Version of Record](#). Please cite this article as doi: [10.1111/1471-0528.17413](https://doi.org/10.1111/1471-0528.17413)

after a failed attempt at instrumental vaginal birth. They also found that babies born by Kielland's had lower prevalence of significant trauma compared to rotational ventouse, similar to Al-Wattar et al (Curr Opin Obstet Gynaecol 2015;27(6):438-44). This is hardly surprising; despite their notoriety, Kielland's in the hands of a trained experienced accoucheur can be applied to posterior and transverse malposition, prematurity, face presentation, and in the presence of significant caput. They can also be used for 'asynclitic occipito-anterior', a term which has crept into practice in the last couple of decades to describe an occiput more than 45 degrees from the midline where non-rotational forceps could not and should not be used. In observational studies in single centres with expertise, including the papers included in Giacchino et al, Kielland's are highly effective. Which brings us to key issues not addressed in the review by Giacchino et al. Who is trained nowadays to use Kielland's safely? And are they safe enough for women's perineum? In a national UK audit (Tempest et al. Acta Obstet Gynecol Scand 2020;99:537-45) Kiellands were used less often than other methods, particularly for transverse occiput positions. When they were used, the rate of anal sphincter injury was higher with Kielland's compared to manual rotation. ROTATE, a multicentre RCT in the UK, aims to address these issues with robust methods, and also examine other important outcomes including mental health and continence (<https://fundingawards.nihr.ac.uk/award/NIHR127818>). Concurrently, innovative research with nano-sensors (Jaufuraully et al, BJOG

2022;129:71) has the potential to make rotational birth techniques safer and more effective regardless of the method used.

Such research may take a while before it produces findings applicable to clinical practice. In the meantime, it remains critical to train accoucheurs appropriately, for example with courses such as ROBUST and ART&CRAFT in the UK; but also to propagate good clinical practice beyond isolated silos, before obstetricians become completely deskilled globally. A possible solution would be for centres of excellence in rotational birth to offer apprenticeships to senior obstetricians from other maternity units. Training junior accoucheurs cannot translate into safer practice unless their mentors are also trained and confident to supervise them.