Regional blocks superior to general anesthesia for cesarean section

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General anesthesia (GA) is associated with an increased risk of infant intubation and low Apgar scores, relative to regional anesthesia. An analysis of 50,806 cesarean deliveries, published in the open access journal *BMC Medicine*, strongly supports guidelines that regional anesthesia is to be preferred over GA for most cesarean sections.

Charles Algert, from the Kolling Institute at the Royal North Shore Hospital, Sydney, was part of a team of researchers who studied births in the state of New South Wales, Australia, between 1998 and 2004. He said, "We have shown that general anesthesia poses significant risks to the neonate of both resuscitation requiring intubation and of a poor Apgar score at 5 minutes. The greatest relative risk of both adverse outcomes occurred in low-risk, planned, repeat cesarean deliveries under GA, but the greatest excess in risk attributable to GA was for emergency deliveries for fetal distress where the infant would already have been compromised to some extent".

Although current guidelines recommend regional blocks, GA was still used for 12.6% of cesareans across NSW in 2006. According to the NHS Maternity Statistics, 8.7% of cesarean sections in England in 2006-2007 were performed using GA. It is generally presumed that any harm caused by GA is short-lasting, with most studies focusing on resuscitation and the Apgar score at one minute. According to Algert, however, this may not be the case, "The increased rates of neonatal intubation after GA shown in this study represent harm in and of itself, and the persistence of low 5-minute Apgar scores suggests that

deleterious effects may last longer than the immediate aftermath of delivery".

The authors conclude, "Clinicians considering the use of GA for a cesarean delivery should be aware of these possible consequences for the infant, for both planned and emergency sections".

More information: Regional block versus general anaesthesia for caesarean section and neonatal outcomes: a population-based study, Charles S Algert, Jennifer R Bowen, Warwick B Giles, Greg E Knoblanche, Samantha L Lain and Christine L Roberts, *BMC Medicine* (in press), www.biomedcentral.com/bmcmed/

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