Neonatal Injury and Resuscitation: A Liability for Anesthesiologists?

An Update From the Anesthesia Closed Claims Project

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An anesthesiologist was called STAT for an emergency cesarean section for severe fetal bradycardia. The anesthesiologist rapidly anesthetized the mother using a rapid-sequence induction and a floppy, pale, non-responsive baby was delivered. An obstetric nurse and family practitioner attempted to stimulate the baby and placed an oxygen mask on the baby. They began bag-mask ventilation and chest compressions due to persistent bradycardia and absent respiration after one min. The anesthesiologist was asked to assist with endotracheal intubation, while the family practitioner monitored the mother. The anesthesiologist intubated the baby and administered epinephrine down the endotracheal tube. The anesthesiologist then resumed care of the mother. The baby died the following day. A neonatologist expert witness criticized the anesthesiologist for failure to properly resuscitate the baby, including delay in resuscitation, inadequate dose of epinephrine, failure to place an umbilical line and failure to follow the American Academy of Pediatrics newborn resuscitation guidelines. The case against the anesthesiologist was dismissed. He was acting as a Good Samaritan with primary responsibility for the mother's care and his standard of care in resuscitating the baby was appropriate for a generalist anesthesiologist.

The above case represents every anesthesiologist's nightmare: an emergency C-section for fetal distress, lack of pediatrician-trained providers to resuscitate the newborn, limited anesthesiologist training and continued practice in neonatal resuscitation, and being named in a lawsuit after helping to resuscitate the newborn as a Good Samaritan. The anesthesiologist's responsibility is for the care and well-being of the mother, but as in this case, they may be asked to help in resuscitation of the newborn in an emergency. The medical liability of newborn resuscitation as a Good Samaritan is unclear. We therefore reviewed obstetric anesthesia malpractice claims in the Anesthesia Closed Claims Project database, funded by the Anesthesia Quality Institute, to assess the liability of the anesthesiologist for newborn death and brain damage and liability in newborn resuscitation.

The Anesthesia Closed Claims database contains more than 10,500 claims for adverse outcomes between 1970 and 2013, collected by anesthesiologist reviewers from the files of closed malpractice claims at participating professional liability insurance companies. These companies insure approximately one-third of practicing anesthesiologists in the United States. For this review, we focused on claims for adverse outcomes between 2000 and 2013.

Claims for newborn death and severe brain damage formed 29 percent (n=76) of 263 obstetric anesthesia malpractice claims in the 2000s. In contrast, most (71 percent) of the obstetric anesthesia claims were for maternal injuries, consistent with the anesthesiologist's primary responsibility. More than two-thirds of the newborn death/brain damage claims were associated with non-reassuring fetal heart tracings and more than three-fourths were associated with emergency C-section. The main causes of the newborn injury were obstetric care, maternal or neonatal condition, or both, reflecting the infrequent impact of anesthetic care on newborn death/brain damage.

Anesthesia care was thought to have contributed to some extent in only one-third (n=25) of claims for newborn death/brain damage. Anesthesia delay (n=11), poor communication

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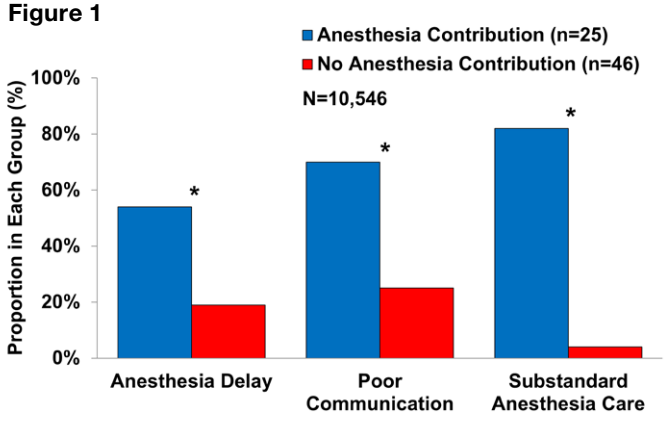
(n=12) and substandard care (n=20) occurred more frequently when anesthesia care may have contributed to the newborn outcome (Figure 1). Anesthesia delays, ranging from 15 to 67 minutes, were due to the anesthesiologist being out of the hospital or unavailable in the hospital (n=4) or inappropriate choice of a regional rather than general anesthesia (n=5). While the "30 minutes or less decision-to-incision" time for emergency C-section is controversial, failure to adhere to this interval is important in medical malpractice and contributes to the assessment of substandard care.[1] Miscommunication predominantly involved the level of urgency of the C-section. A 2004 Joint Commission Sentinel Event Alert identified miscommunication between care providers as the most frequent preventable cause of newborn death/brain damage.[2] Other anesthetic causes contributing to newborn death/brain damage were maternal hypoxia due to difficult intubation or severe hypotension and hypoxia due to high block/total spinal.

Figure 1



Factors associated with anesthesia contribution to newborn death/brain damage in obstetric anesthesia malpractice claims in the 2000s. Anesthesia delay, poor communication between anesthesiologist and obstetrician, and substandard anesthesia care were associated with anesthesia contribution. *p<0.01 by Fisher's Exact test. Based on total database of 10,546. Figure adapted from Figure 3 in Davies JM, Posner KL, Lee LA, et al. Liability associated with obstetric anesthesia. A Closed Claims analysis. *Anesthesiology.* 2009; 110:131-9.[1]

Anesthesia care was judged to be substandard in most claims with a possible anesthesia contribution to newborn death/brain damage (Figure 1). Although anesthesiologists are often named in lawsuits for newborn death/brain damage, payments on behalf of anesthesiologists were generally limited to the cases in which anesthesia care contributed to the adverse newborn outcome.

Newborn resuscitation by the anesthesiologist was an issue in the lawsuits in 12 of the claims associated with newborn injury. In most cases, the anesthesiologist was a Good Samaritan assisting with the newborn resuscitation and was dropped from the lawsuit without payment. Payments were made on behalf of the anesthesiologist and/or anesthesia corporation in three claims (median payment $570,000, with range of $151,249 to $3,250,000). In one claim, payment on behalf of the anesthesiologist was based upon poor care and documentation of a labor epidural over an hour prior to the emergency C-section; newborn resuscitation was judged as adequate. In the other two claims, anesthesiologists were called to the delivery room or neonatal intensive care unit to perform an intubation while not providing care to the mother, with the intubation resulting in undetected endobronchial intubation that contributed to poor neonatal outcome due to hypoxia and/or a pneumothorax. The anesthesiologist was dropped in the majority of cases in which he or she participated in newborn resuscitation, with undetected endobronchial intubation being an area of increased anesthesia liability.

In summary, while anesthesiologists are often named in lawsuits for newborn death/brain damage, they are often dismissed from these lawsuits. Payments on behalf of anesthesiologists occurred with delays in care, miscommunication in level of urgency of the C-section, concerns over management of difficult intubation or high block, or lapses in care or record keeping. Anesthesiologists were also dismissed in most cases of neonatal resuscitation when the anesthesiologist was serving as a Good Samaritan. As our cases had obstetric nurses and/or other physicians primarily responsible for the newborn resuscitation, our findings cannot address the liability of anesthesiologists who are the primary providers of newborn resuscitation.

References:

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2. The Joint Commission. Preventing infant death and injury during delivery. *Sentinel Event Alert.* July 21, 2004;30. https://www.jointcommission.org/sentinel_event_alert_issue_30_preventing_infant_death_and_injury_during_delivery. Accessed December 12, 2016.

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