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"Excessive Traction" and Obstetrical Palsies: Are These Claims Losing Traction?

OBSTETRICAL CLAIMS ARE AMONG THE MOST FREQUENT—AND COSTLIEST—TYPES OF MEDICAL PROFESSIONAL LIABILITY (MPL) CLAIMS. *One type involves brachial plexus injuries associated with infants whose shoulders are stuck after the head is delivered, called "shoulder dystocia." The brachial plexus is a complex set of nerves that branch off from the spinal cord in the neck and branch out in the shoulder. Injuries may cause impairment of the shoulder, elbow, and forearm. Verdicts usually range from $1 million to $3 million.*

Plaintiffs claim that the injuries resulted from "excessive traction" by obstetricians trying to extract the stuck shoulder, implying that the obstetrician pulled "too hard." The word "excessive" is insidious from the doctor's perspective, because it implies negligence and causation. The injury results because the nerve is stretched "excessively," i.e., more than it can tolerate, but the word implies that the obstetrician must have pulled too hard. Since obstetricians rarely note the amount of force used for delivery and simply refer to maneuvers for delivering the stuck arm, plaintiffs argue that obstetricians cannot prove that traction was "gentle" because of the lack of documentation of the amount of force. The problem is compounded because of statements in books like Volpe's *Neurology of the Newborn*,[1] that injuries result from "excessive" traction, again implying malpractice. Meanwhile, Volpe's text has never defined "excessive," and has never defined whether it meant more traction than the nerve could tolerate, or more pulling than the obstetrician should do. Further, citations in Volpe's book have not been updated, despite new editions and evolving medical research.

Because of obvious limitations on research, treatment is

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often empirical or intuitive rather than "evidence based." Retrospective studies of thousands of deliveries by researchers such as Robert Gherman, MD, from Maryland, have demonstrated that risk factors for shoulder dystocias (e.g., maternal weight gain and estimated fetal weight) are rarely predictors of dystocia.[2] However, issues of "excessive traction," and measurement of the amount of force and direction of delivery are difficult to study, even retrospectively, and difficult to quantify. Thus, plaintiffs continue to claim that the injury "proves" that traction was excessive and therefore negligent.

How, then, can obstetricians persuasively show that traction applied was "normal," reasonable or, ideally, "gentle" and not "excessive"? One approach has been to object to the term "excessive traction" by pediatric neurologists to describe the cause of injury, because it implies that the care was deficient and because pediatric neurologists are not competent to testify about obstetrical standards of care. A frequent plaintiff's pediatric neurology expert—Daniel Adler, MD, of New York—has tried to thread the needle by contending that he was not testifying about obstetrical standards, only the injury. However, in *Drake v. Bingham,*[3] Judge Aurigemma precluded Dr. Adler from testifying that traction was excessive, because it implied that the care was improper. Meanwhile, in a January 2010 case, Dr. Adler was not allowed to use the term "excessive" by agreement of counsel. His fallback position was to imply that excessive traction was used, by testifying that the injury could only occur if the baby's head were tilted laterally toward the floor when the shoulder was stuck, thereby stretching the nerve to the breaking point. The plaintiff's obstetrical expert buttressed this causation opinion by testifying that such lateral movement was malpractice because it was "excessive."

Therefore, simply precluding the word "excessive" is insufficient. It is necessary to clarify and address the different ways "excessive traction" is used to describe deliveries. Thus, excessive traction may refer to excessive angulation (lateral traction with the head tilted toward the floor, thereby stretching the nerve), excessive force (pulling too hard, even in an appropriate direction), and pulling too rapidly.

Direction

Lateral movement of the fetal head, presumably to pull the stuck shoulder down under the arch of the pelvic bone, is generally considered to be improper. The obstetrician defends against this claim by showing that the head was not tilted laterally but was maintained in line with the infant's spine. In other words, the head was in the axis of the spine (axial traction), which should not stretch the nerve, not "off axis." However, this defense is blurred because of an ambiguity in the concept of "downward" traction.

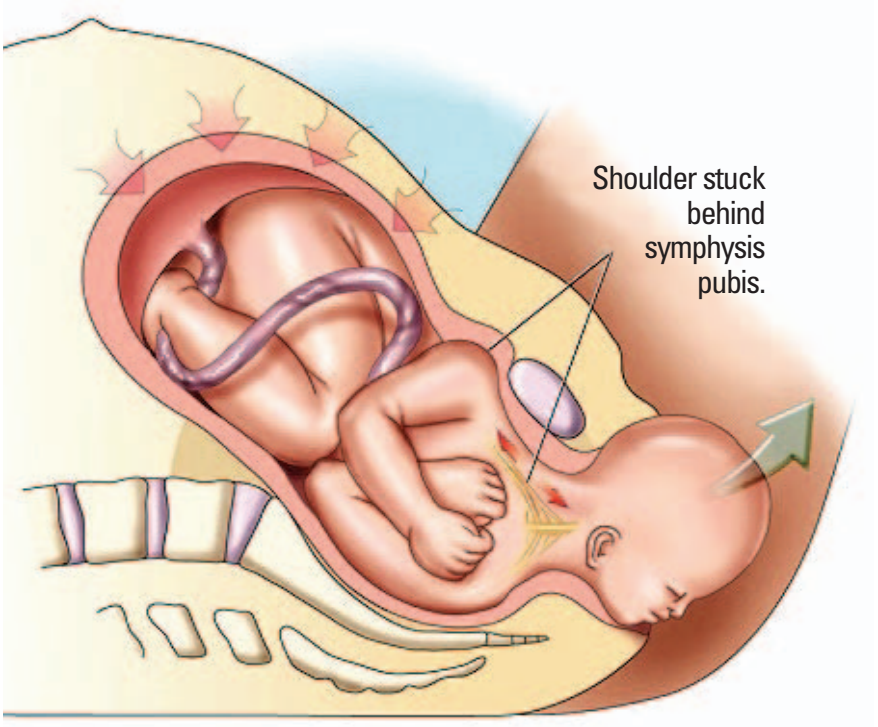
A major text, Williams' *Obstetrics,*[4] states that downward traction is proper. Because of the structure of the pelvic bone, the fetus has to go "downward" and then upward. Pulling the baby up, or straight out, won't work because of the pelvic bone. However, the authors do not appreciate how their terminology gets mangled in litigation. Indeed, plaintiffs claim that "downward means that the head was pulled 'down,'" and therefore lateral to the fetus' body. Therefore, the defense has to explain that downward refers to the trajectory of the fetus, like a plane coming in for a landing. It does not mean that the front of the plane (the baby's head) is flexed downward relative to the rest of the body. Some physicians use the term "in line" traction to reflect that the head was in line with the spine and not turned laterally. Others describe the baby being pulled downward with the head in line with the spine or in the axis of the spine.

A standard plaintiff's exhibit is a diagram of a delivered head, the brachial plexus in the shape of a crescent moon, and the head tilted toward the floor. The diagram is highlighted, with the nerve depicted in red or surrounded by red marks reflecting stretching. The exhibit is potent, because it is a plausible explanation as to how the injury "can" occur, and it is easy for the plaintiff to use the exhibit to claim that this is how the injury did occur in the particular case. Further, it is easy for the plaintiff's obstetrical expert to testify that the angulation is negligent. Therefore, plaintiff's counsel easily argues that the injury necessarily resulted from negligence. Some judges allow the exhibit on the theory that it is simply an anatomic explanation of what "can" occur. Other judges recognize the prejudice of this image in blinding the jury to the facts of the particular case and will preclude this exhibit unless it demonstrates what actually occurred in a particular case.

Force

Another component of excessiveness is the amount of force. The problem is that force cannot be quantified. There is no prescribed or standard number of Newtons or pounds per square inch. In that respect, there is no standard of care as to the amount of force. Without a precise number to measure force, there cannot be a departure from the standard of care because the injury is not supposed to mean there was malpractice. There have been models that have attempted to quantify the amount of force but it is widely acknowledged that the models do not translate into "real life" conduct.

To defend against a claim of excessive force, therefore, defen-



dants need to show that there is not a precise numerical value, but that it is quantified by another "standard," namely, normal traction customarily used during prior deliveries without shoulder dystocia. This raises a presumption that if an obstetrician has done something the same way many times, it is unlikely that the obstetrician will abruptly take a different approach. Of course, success on this issue depends heavily on the credibility of the obstetrician. Plaintiff's response is to claim that the obstetrician panicked, and therefore used more force than customarily used. The obstetrician's demeanor must therefore reflect poise under fire, i.e., cross examination.

Speed

Another component of "excessiveness" involves the speed of delivery. However, this is likely to occur where there has been a rapid second stage of labor where the fetus descended quickly before the head was delivered.

Alternative explanations

In addition to defending against claims of excessive traction, defendants must also explain why such injuries occur despite proper care and how forces of labor, before or in addition to normal interventions, can stretch vulnerable nerves. Endogenous forces of labor include the force of maternal contractions plus pushing, plus squeezing of the uterus, where the anterior shoulder is pushed against the pelvic bone. The body is pushed forward, the shoulder becomes stuck, and the nerve stretches. That makes sense. This explanation, combined with a demonstration of the cardinal movements of labor, showing the turning and twisting that the fetus undergoes, is a vivid portrayal of why this injury can occur before any intervention by the obstetrician.

A problem with this theory is that it is just a theory. It is "presumed" from the circumstances, but cannot be verified with prospective studies. These presumptions arise from the conclusion that brachial plexus injuries occur with a certain frequency every year, at times when shoulders have become stuck and at other times when they do not appear to have been stuck, and in some cases, with cesarean sections. The literature is replete with such explanations, as in the articles co-authored by Dr. Gherman.[2]

Defense witnesses must explain that endogenous forces can indeed cause both transient and permanent obstetrical palsies and why expulsive forces produce permanent injury despite the rarity of permanent injuries. Thus, shoulder dystocia is relatively rare (about 1% of vaginal deliveries) and associated with the infant's shoulders not rotating sufficiently for delivery, causing the anterior shoulder to be pushed against the pelvic bone. Permanent brachial plexus injury is associated with this phenomenon (even though it is less than 0.1 of 1% of vaginal deliveries) because nerves are more susceptible to injuries or simply don't recover as effectively as other stretched nerves.

Because it is a theory, presentation of it requires someone who has had extensive experience with it. This is difficult because shoulder dystocia occurs in only 1% of deliveries, and brachial plexus injuries occur in only a fraction of those deliveries. Since most injuries resolve within a few days, permanent brachial plexus injuries are extremely rare, with an estimated occurrence of about 1/1,000. Therefore, it is necessary to retain pediatric neurologists or pediatric neurosurgeons who specialize in peripheral nerve injuries and who work in an area where there are likely to be thousands of deliveries per year.

Because of the many articles that explain how injuries can occur *in utero* and how expulsive forces of labor can push the affected shoulder against the symphysis pubis, plaintiffs have been forced to acknowledge that "some stretching" can occur *in utero*. They counter that "*in utero*" forces only produce transient injuries, but are not sufficient to produce permanent injuries and that such injuries require "a lot of traction," which can only come from the obstetrician. This theory seems to stem from ambiguities in the medical literature that do not explicitly state that the injuries associated with endogenous forces are both temporary and permanent. It is also based upon some articles that contend that "significant" force is required to create a permanent injury.[3] Finally, it is based on the assertion that *in utero* forces of labor could not cause permanent injury, since these forces are common in most deliveries, but that permanent injuries are very rare.

The response to this assertion is evidence—albeit circumstantial—that some fetuses are more vulnerable to these stresses than others, and that permanent injury results, like transient

injuries, from the fetus' vulnerability to the forces of labor.

Better science, clearer issues, more successful defenses

By limiting and clarifying the term "excessive traction," and by showing how endogenous forces of labor cause brachial plexus injuries, the plaintiff's bar no longer has a *res ipsa* type of claim to present to the jury, and defendants can prepare articulate, forceful, and persuasive defenses as to the standard of care and causation. Thus, in Connecticut, there have been several defense verdicts against an accomplished plaintiff's personal injury firm that has pursued many such claims.[5]

This trend also appears to be true nationally. One of the leaders of the Hospital Corporation of America claims that there have been no claims involving such injuries against the HCA for the past eight years.[6] PIAA

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1 Volpe, J, Neurology of the Newborn, "Injuries of Extracranial, Cranial, Intracranial, Spinal Cord and Peripheral Nervous System Structures," Chapter 22, (Saunders) 5th ed., 2008, p. 973, "The typical clinical setting comprises obstetrical and fetal factors that predispose the infant to traumatic injury, particularly by excessive traction." [Emphasis added].

2. Chauhan, Gherman et al, Shoulder Dystocia: Comparison of the ACOG Practice Bulletin with another national guideline, Am J Perinatol, June 29, 2009; Chauhan SP, Christian B, Gherman RB, Magann EF et al, Shoulder dystocia without versus with brachial plexus injury: a case-control study. J Matern Fetal Neonatal Med. 2007 20(4):313-17. PubMed PMID: 17437239; Gherman RB, Chauhan S, Ouzounian JG, Lerner H, Gonik B et al, Shoulder dystocia: the unpreventable obstetric emergency with empiric management guidelines. Am J Obstet Gynecol. 2006 195(3): 657-72. Epub 2006 April 21. Review. PubMed PMID: 16949396; Gherman, June 2002, Shoulder dystocia: an evidence-based evaluation of the obstetric nightmare, Clin. Obstet Gynecol. 45(2): 345; Gherman, 2002, New insights into shoulder dystocia and brachial plexus palsy, Obstet Gynecol Surv. 2003 58(1):1-2; Gherman, RB, Ouzounian, et al. Brachial plexus palsy: an in utero injury?. Am J Obstet Gynecol. 1999 180:1303.

3 Drake v. Bingham, Middlesex Sup Ct., Docket #: MMX-CV05-4003332-S, Defense verdict, May, 2008, reported in Ct. Law Tribune, Personal Injury Yearbook, Feb., 2009, p. 31, and "Infant Shoulder Injury Suit Doesn't Pay Off," by T. Scheffey, Ct. Law Tribune, February 24, 2010.

4. Williams' Obstetrics, 21st ed., 2001 (McGraw Hill), Chapter 19, "Dystocia," p. 461, "Moderate suprapubic pressure is applied by an assistant while downward traction is applied to the fetal head." [Emphasis added].

5. Gurewitsch ED, Allen RH, Shoulder dystocia, Clin Perinatol 2007 34(3):365-85; Gurewitsch ED, Optimizing shoulder dystocia management to prevent birth injury, Clin Obstet Gynecol 2007 50(3):592-606.

6. Penix v. Edelstein, Hartford Sup Ct., Docket #: HHD-CV03-0829973-S Defense verdict, Dec., 2009); Goss v. Yeager, Hartford Sup Ct., Docket #: HHD-CV01-4025135-S, Defense verdict, Feb., 2010; Drake v. Bingham, Middlesex Sup Ct., Docket #: MMX-CV05-4003332-S, Defense verdict, May, 2008, reported in Ct. Law Tribune, Personal Injury Yearbook, Feb., 2009, p. 31, and "Infant Shoulder Injury Suit Doesn't Pay Off," by T. Scheffey, Ct. Law Tribune, February 24, 2010.

7. "Can Obstetrics Become a High-Reliability Profession?" by Steven L. Clark, MD, Medical Director Women's and Newborn Services, Hospital Corporation of America, presentation at the 2009 PIAA Claims/Risk Management Workshop, San Antonio, Texas, October 16, 2009.