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Analysis of medical malpractice claims involving pediatric surgical conditions.

Ruchi Amin[1], Camaleigh Jaber[2], Steven L Lee[2], Veronica F Sullins[1,2]

[1]Department of Surgery, Medical College of Wisconsin, Children's Hospital of Wisconsin, Milwaukee, WI, USA.
[2]Department of Surgery, Harbor-UCLA Medical Center, Torrance, California, USA.

Abstract

Objective: Pediatric surgery is a high-risk specialty. We examine allegations and outcomes in malpractice claims involving index pediatric surgical conditions.

Method: A retrospective review of malpractice claims concerning 11 index pediatric surgery diagnoses from 1984 to 2013 was performed using a publicly available database of state and federal court records.

Results: Of the 411 cases reviewed, 284 (69%) documented a cause for alleged malpractice and 183 (45%) had outcome data of which 44% went to trial, 53% reached a settlement, and 13% were dismissed. Jury verdicts were in favor of the defendant in 69% of cases. Wrongful death was alleged in 46% of cases with the highest percentage in cases of abdominal wall defects (54%), CDH (53%) and malrotation/volvulus (52%). The most common cause for alleged malpractice was a delay or failure in diagnosis (53%), followed by negligence in postoperative care (20%) and negligence in surgery (8%). Forty-seven percent of all deaths were the result of an alleged failure or delay in diagnosis. Overall, the median jury trial award was $1,648,000 (IQR $655,000-6,125,000) and the median settlement was $1,103,668 (IQR $475,000-3,250,000). The most commonly named defendants were hospitals/medical groups (62%), followed by pediatricians (30%) and surgeons (26%).

Conclusion: Delays or failures in diagnosis are the most common allegation in cases of malpractice in index pediatric surgery diagnoses and account for nearly half of all cases of wrongful death. Limiting patient complications and reducing medico-legal risk in pediatric surgery may be achieved by focusing on timely and accurate diagnosis across all pediatric specialties.

Keywords: Pediatric surgery, Death, Anxiety.

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Introduction

What's known on this subject?

Index pediatric surgical conditions often present a diagnostic challenge. Misdiagnosis of these conditions delays treatment and increases complication rate, morbidity and cost. Misdiagnosis of these conditions is also a common focus for alleged malpractice cases.

What this study adds?

Failure or delays in diagnosing index pediatric surgical conditions is the most common reason for alleged malpractice against pediatric surgeons. Although these conditions are a surgical disease, all physicians caring for children with suspected index pediatric surgical conditions are at risk of alleged malpractice.

Few issues in healthcare spark as much anxiety as medical malpractice litigation. Medical malpractice is defined as a civil crime of negligence, an allegation that can often lead to unnecessary expense and emotional pain. Across medical and surgical specialties, surgeons have the highest perceived threat of medical malpractice [1]. One study showed that 90% of surgeons, age 55 and older, have been sued for alleged malpractice [2]. While medical malpractice suits are common among US surgeons, they carry profound personal consequences. There has been a strong relation to physician burnout, depression, increased work schedule/hours, and subspecialty [1]. Furthermore, patient outcomes are the strongest predictor of both payment size and likelihood of payment. Cases involving children younger than 10 years old were 70% more likely to result in a large payment (>$1 million) [2]. Thus,

pediatric surgeons are at even greater risk of such claims, as are all pediatric providers involved in the diagnosis and management of pediatric surgical disease.

The purpose of this study is to investigate allegations and outcomes of medical malpractice claims involving index pediatric surgical conditions. A better understanding of the factors involved with malpractice cases, may potentially lead to a reduction in medico-legal liability for all pediatric providers.

Methods

This study was deemed exempt by the Human Subjects Committee of the Institutional Research Board at the Los Angeles Biomedical Research Institute at Harbor-UCLA Medical Center (Protocol #30268-01) and a HIPAA waiver was obtained. Data collection complied with all established institutional regulations.

Using LexisNexis (Reed Elsevier, Dayton, OH), an online legal database of publicly available state and federal court records, a retrospective review of all medical malpractice claims concerning pre-identified index cases from 1984 to 2013 in pediatric patients was performed. Keywords entered into the medical malpractice search engine included "pediatric", "child", "infant", "boy", "girl" or "minor" coupled with the following index pediatric surgical diagnoses: malrotation/volvulus, neuroblastoma/Wilm's tumor, congenital diaphragmatic hernia, Hirschsprung's disease, abdominal wall defects (specifically gastroschisis and omphalocele), biliary atresia, pyloric stenosis, extracorporeal membranous oxygenation, imperforate anus/anorectal malformation, esophageal atresia/tracheoesophageal fistula, and intestinal atresia. All cases of alleged malpractice directly relating to the diagnosis of the aforementioned index pediatric surgical diagnoses, or performance of the associated surgical intervention in pediatric patients, age 0-18, were included. After excluding duplicate case listings, individual cases were reviewed. Alleged claims and/or causes of malpractice, case details, defendant's medical specialty and outcomes, including verdicts, settlements and awards were collected and transferred, without identifying information into a computerized database. Monetary amounts were then inflation adjusted to current dollar value in 2016. Cases were excluded if the cause of malpractice was not directly related to the diagnosis or management of the associated surgical disease process, if plaintiffs were adult patients, if it could not be determined if the plaintiff was a pediatric patient (age was not recorded and the patient was not treated by a pediatrician or physician in a pediatric subspecialty) or if there were several records of the same case due to multiple trials, appeals or records.

Numerical data were analyzed using a t-test for unequal variances and categorical data were analyzed using a Chi-square test (Microsoft Excel, Microsoft Corporation, Redmond, WA). Statistical significance was defined as $p<0.05$.

Results

Of the 411 cases reviewed, 284 (69%) documented a cause for alleged malpractice, and 183 (45%) had outcome data. Results are summarized in Table 1. Of the 183 cases with known outcomes, 44% went to trial, 53% reached a settlement, and 13% were dismissed. Jury verdicts were in favor of the defendant in 69% of cases. Wrongful death was alleged in 46% of cases with the highest percentage of wrongful death claims in cases of abdominal wall defects (54%), CDH (53%) and malrotation/volvulus (52%). The most common cause for alleged malpractice was a delay or failure in diagnosis (53%), followed by negligence in postoperative care (20%) and negligence in surgery (8%). Forty-seven percent of all deaths were the result of an alleged failure or delay in diagnosis. Overall, the median jury trial award was $1,648,000 (IQR $655,000-6,125,000) and the median settlement was $1,103,668 (IQR $475,000-3,250,000). The most commonly named defendants were hospitals/medical groups (62%), followed by pediatricians (30%) and then surgeons (26%).

Discussion

Historically, it was thought that the malpractice system would improve the quality of care by deterring negligence. However, many studies show that malpractice rates do not in fact correlate with positive outcomes [3]. Furthermore, as malpractice litigation continues to rise in the United States, delays or failures in diagnosis are one of the most common allegations in malpractice cases [4]. The pediatric patient tends to be a challenging diagnostic patient population. The inability to articulate their symptomatology, coupled with reluctance to use diagnostic modalities such as CT scans due to limit radiation, poses a difficult task for pediatric surgeons. With accurate and timely diagnosis medical legal risk in pediatric surgery may be decreased. These concerns are not limited to surgeons or emergency medicine physicians, but apply to all healthcare staff caring for this population. Therefore, timely diagnosis of index pediatric surgical index cases should be the focus of physicians across all specialties in order to improve patient safety and potentially reduce liability.

This study showed that a delay in diagnosis was the most common reason for malpractice claim against physicians involved in pediatric index surgical cases. Nearly half of the malpractice claims in this study were due to delays in diagnosis or failure to diagnose the condition (53%). Negligence in postoperative care (20%) and negligence during surgery (8%) were the next two highest reasons for malpractice claims. Although the diagnoses that were studied are considered "surgical" diseases, accurate diagnosis depends on the coordinated care of many physicians. A recent study of malpractice claims showed that pediatricians and family practitioners were among the least likely to face a lawsuit [5]. Our study found hospital groups as the most commonly named defendant (38.3%), followed by pediatricians (29.0%), surgeons

Table 1. *Case outcomes by diagnosis*

Diagnosis	Settlement	Trial	Plaintiff Verdict	Median Settlement Payment	Median Trial Payment	Deaths
Malrotation/Volvulus (n=66)	56%	32%	2%	$1,002K	$2,425K*	52%
NB/Wilm's Tumor (n=42)	52%	45%	7%	$750K	$1,513K*	45%
CDH (n=36)	47%	47%	24%	$475K	$6,125K	53%
Hirschsprung's (n=35)	54%	33%	8%	$1,280K	$1,625K*	49%
AWD (n=28)	54%	53%	16%	$2,305K	$1,548K	54%
Biliary Atresia (n=17)	75%	50%	13%	$400K*	$16,500K*	29%
Pyloric Stenosis (n=14)	56%	56%	11%	$2,337K*	$1,898K*	29%
ECMO (n=14)	44%	67%	22%	$4,650K*	$430K*	36%
Other^ (n=32)	48%	52%	15%	$2,250K	$1,050K	38%

NB: Neuroblastoma; CDH: Congenital Diaphragmatic Hernia; AWD: Abdominal Wall Defects; ECMO: Extracorporeal Membrane Oxygenation

*Fewer than 3 cases

^Includes imperforate anus, esophageal atresia, intestinal atresias

(25.9%), emergency medicine physicians (20.2%) and family practitioners (8.8%). This further emphasizes the importance of timely diagnosis by physicians of all specialties when managing complex pediatric surgical disease.

There are several limitations to this study relating to the information database that was used. The LexisNexis legal database is an electronic legal and business resource with access to over 60,000 legal, news, business and public records sources including case laws, statutes, legal proceedings, verdicts, settlements, and a mix of both public and proprietary records. All legal information was obtained from publicly available court and legal records and state information databases, including information self-reported by attorneys. Legal reporting patterns and the level of detail recorded in each case varied widely by state, jurisdiction, and third party reporting agency. For this reason, not all information was available for each case. Although legal databases do inherently have a selection bias, the use of such legal resources has been used in previous published studies involving malpractice [6,7].

The percentage of cases ultimately leading to a jury trial in our study was significantly higher than the conventional 2% of all lawsuits filed [8]. This discrepancy may be explained by the voluntary reporting of data by attorneys and third party reporting agencies and represents a systemic bias in the use of this type of database. In fact, this number may be even higher since it is presumed that not all complications are reported or result in malpractice claims. While the data reviewed is a representative sample of claims made nationally, it is possible that our data may not be inclusive of all complications. Focus on jury verdicts excludes a large number of malpractice cases settled outside the court. Additionally, a widely variable amount of information was available for each case reviewed. This likely represents differential reporting patterns across jurisdictions, states, and individual attorneys. Other descriptive studies of malpractice list issues with informed consent [2]. Case records from the current study did not uncover cases where failure or lack of informed consent was a cause for malpractice claims.

Additionally, award amounts are likely inflated. Some states (i.e., California) have regulations limiting the public reporting of cases that have awards below a certain monetary value. Attorney reporting also will likely only be focused on the most highly awarded cases. Although the average awards reported here are likely overestimated, there is still value in understanding the scope/range in award money that may be at stake.

Conclusion

Delays or failures in diagnosis are the most common allegation in cases of malpractice in index pediatric surgical diseases and account for nearly half of all cases of wrongful death. Limiting patient complications and reducing medico-legal risk in pediatric surgery may be achieved by focusing on timely and accurate diagnosis across all pediatric specialties.

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Contributor's Statements

Dr. Amin and Jaber assisted with drafting of the manuscript.

Dr. Sullins conceptualized and designed the project, collected and analyzed the data, and revised the manuscript.

Dr. Lee conceptualized and designed the project, assisted with data analysis, revised the manuscript, and provided guidance.

Drs. Amin, Jaber, Lee and Sullins approved the final manuscript as submitted and agree to be accountable for all aspects of the work.

References

1. Deshpande SP, Deshpande SS. Factors impacting perceived threat of malpractice lawsuits by various medical specialists. Health Care Manag 2011; 30: 55-65.
2. Orosco RK, Talamini J, Chang DC, et al. Surgical malpractice in the United States, 1990-2006. J Am Coll Surg 2012; 215: 480-488.
3. Jena AB, Seabury S, Lakdawalla D, et al. Malpractice risk according to physician specialty. N Engl J Med 2011; 365: 629-636.
4. Thyoka M. Clinical negligence claims in pediatric surgery in England: Pattern and trends. Eur J Pediatr Surg 2014; 25: 66-70.
5. Paul KB, Keith HB, Kelsey MK, et al. When patients are harmed, but are not wronged: Ethics, law and history. Mayo Clin Proc 2014; 89: 1279-1286.
6. Subramanyam R, Childambaran V, Ding L, et al. Anesthesia and opioids-related malpractice claims following tonsillectomy in USA; LexisNexis claims database 1984-2012. Pediatr Anaesth 2014; 24: 412-420.
7. Awad MA, Osterberg EC, Chang H, et al. Urethral catheters and medical malpractice: A legal database review of 1965 to 2015. Transl Androl Urol 2016; 5: 762-773.
8. http://www.statisticbrain.com/civil-lawsuit-statistics/
9. Selbst SM, Osterhoudt K. Pediatric emergency medicine: Legal briefs. Pediatr Emerg Care 2012; 28: 1402-1405.

Correspondence to:

Steven L Lee,
Department of Surgery and Pediatrics,
Harbor-UCLA Medical Center,
1000 West Carson St., Box 461, Torrance,
CA 90509.
USA.
Tel: 310-222-2700
E-mail: slleemd@yahoo.com