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Retrospective Study

Medical malpractice litigation involving otolaryngology residents and fellows: a case-based 30-year review

Litigation of Otolaryngology trainees

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Abstract

BACKGROUND

Errors, misdiagnoses, and complications can occur while trainees are involved in patient care. Analysis of such events could reveal areas for improvement by residency and fellowship programs.

AIM

This study examines lawsuits tried at the state and federal level involving otolaryngology trainees.

METHODS

The LexisNexis database, an online legal research database containing state and federal case records from across the United States, was retrospectively reviewed for malpractice cases involving otolaryngology residents or fellows from January 1st 1990 to December 31st 2020. Case data collected: plaintiff/trainee/defendant characteristics, allegations, medical outcomes, and legal outcomes.

RESULTS

Over the study period, 20 malpractice lawsuits involving otolaryngology trainees were identified. Plaintiffs raised numerous allegations including procedural error ($n = 12$, 25.5%), incorrect diagnosis and/or treatment ($n = 8$, 17.0%), and lack of knowledge of trainee involvement ($n = 6$, 12.8%). Nine cases (45%) had verdicts in favor of the plaintiff, whereas 5 cases (25%) had verdicts in favor of the defense. Six cases (30%) ended in a settlement. Awards to plaintiffs were heterogenous, with a median of \$617,500 (range \$32K–17M) for settled cases and verdicts favoring plaintiffs.

CONCLUSION

The findings enclosed herein represent the first published analysis of trainee involvement in otolaryngology malpractice cases held at the state/federal level.

Otolaryngology trainees can be involved in lawsuits for both procedural and nonprocedural events. This study highlights the importance of education specifically in the domains of procedural errors, informed consent, proper diagnosis/management, and clear communication within patient care teams. Training programs should incorporate these study findings into effective simulation courses and didactic sessions. Educating trainees about common pitfalls holds the promise of decreasing healthcare systems costs, reducing trainee burnout, and, most importantly, benefiting patients.

Key Words: Malpractice; Otolaryngology; Education; Trainees; Litigation; Quality improvement

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Core Tip: Prior reports indicate that surgeons will face at least one malpractice lawsuit during their career. Malpractice suits and the threat thereof may pose a significant psychological burden on young otolaryngologists. Preparation for such a situation should be embedded into residency curricula, yet no prior study has reported on this topic otolaryngology trainee litigation on a state/federal level. The reported cases highlight the importance of thorough informed consent, proper diagnosis/management, and clear communication between attending physicians and trainees. Incorporating these seminal cases into the existing literature would support preemptive educational efforts and provide evidence-based insight for trainees in a legal predicament.

INTRODUCTION

Otolaryngologists operate in anatomically challenging territory composed of delicate structures. Even with adequate experience and expertise, complications can

and, unfortunately, do occur. The most concerning of such adverse events include anoxic brain injury, vision loss, hearing loss, vocal cord paralysis, facial paralysis, suffocation, and even death. As a result, otolaryngology is a specialty that is especially prone malpractice litigation.¹ Prior reports indicate that physicians in high-risk specialties will face at least one medical malpractice lawsuit during their career.² Malpractice laws were initially instituted to create physician accountability and uphold patient safety. Consequences of such lawsuits can culminate in burnout and the adoption of defensive medicine, defined as the administration of additional procedures or refusal to treat due to a threat of litigation.³⁻⁸

Residents and fellows (trainees) are considered physicians but operate under the supervision and responsibility of attending physicians. By law, under the doctrine of *respondeat superior*, translated as “let the master answer,” the employer, the attending physician, is liable for the acts of their agents, the trainees.⁹ Despite this legal doctrine, trainees are not fully protected from their mistakes. Previous analyses of medical malpractice claims identified residents as defendants in 30% of claims and in 18% of surgery-related litigation trials.¹⁰⁻¹³ Although prior literature has examined malpractice cases in all subspecialties within the field of otolaryngology¹⁴⁻¹⁹, no prior report has specifically investigated litigation against trainees.

The current study investigates lawsuits that include otolaryngology trainees as defendants. A thorough understanding of these cases serves to offer useful insight into areas of improvement in otolaryngology residency and fellowship programs. Learning from these common allegations can help minimize adverse outcomes and future lawsuits, as well as alleviate physician anxiety, decrease potential burnout, and ultimately cultivate a safer environment for the benefit of patients.

MATERIALS AND METHODS

An institutional subscription was used to log into the LexisNexis legal database. This collection stores every appellate federal and state case spanning from January 1790 to present day.²⁰⁻²¹ LexisNexis was specifically used because it is one of the most heavily

cited databases in the literature investigating medical malpractice litigation. Additionally, many hospitals and health systems employ the LexisNexis database to inform hiring and risk management decisions.^{20,22-25} This study does not constitute human subject research and was deemed exempt from review by the University of Pennsylvania Institutional Review Board.

The LexisNexis database was queried for litigation involving otolaryngology trainees between January 1st, 1990 and December 31st 2020. Keywords used to search the database included ("residency" or "resident" or "fellow" or "trainee" or "post graduate" or "first year" or "1st year" or "second year" or "2nd year" or "third year" or "3rd year" or "fourth year" or "4th year" or "fifth year" or "5th year" or fellow or fellowship) and (otolarynx* or "ear" or "nose" or "throat") and malpractice. Our search query yielded a total of 247 cases, each of which was reviewed by 3 authors (NVS, VNS, EN). There was 100% consensus among all authors.

To be included, cases must have cited involvement of an otolaryngology trainee (residents or fellows) in the allegation by the plaintiff. The otolaryngology trainee however did not need to be listed as a defendant in the case.

Case data collected included: plaintiff/trainee/defendant characteristics, case characteristics, allegations, medical outcomes, and legal outcomes. Allegations were designated as follows: delay in evaluation, incorrect diagnosis/treatment, procedural error, lack of informed consent of procedure/complication, lack of informed consent of resident being involved, failure to supervise resident, inexperienced trainee(s), prolonged operative time, and lack of or incorrect communication between trainee and attending. Descriptive statistical analysis was performed using SPSS Statistics software (IBM, Armonk, NY). Data were expressed as mean \pm standard deviation (SD) or median (interquartile range [IQR]).²⁶

RESULTS

Of the 247 search results of malpractice cases within the field of otolaryngology during the study period, 20 cases involved otolaryngology residents or fellows and were

included in the study (**Table 1**). In total, the malpractice lawsuits included 20 plaintiffs, 48 defendants, and spanned 11 different states. The most common geographic location was New York ($n = 5$). These cases involved 14 (70%) female patients and 6 (30%) male patients. Post graduate year (PGY) of residents was available for 7 of the 20 cases, of which 3 cases involved junior trainees (PGY 1-3) and 4 cases involved senior trainees (PGY 4-5 or fellow). On average, these cases had 2.4 ± 2.1 (mean \pm SD) defendants. An otolaryngology trainee was directly involved in each of the 20 cases and 5 cases initially named the trainee as one of the defendants. No case listed the trainee as the only defendant. The frequency of reports demonstrated a downward trend in recent decades: 1990-2000, 9 cases; 2001-2010, 7 cases; and 2011-2020, 4 cases.

Allegations

The allegations made by the plaintiffs were reviewed and categorized (**Table 2**). A total of 47 allegations were made. Of the 20 cases, 17 (85%) reported multiple adverse events, and the most frequent allegation claimed by the plaintiffs was procedural error ($n = 12$, 25%). With regard to procedural error, those most commonly cited were damage to the stapes and oval window during removal of middle ear cholesteatoma, recurrent laryngeal and long thoracic nerve injury, and damage to the lamina papyracea during functional endoscopic sinus surgery (FESS). Ten of the 12 procedural errors resulted in complications manifesting postoperatively. Interestingly, concurrent allegations occurring within these 12 cases that alleged procedural errors included: 1) lack of informed consent for residents being involved in the operation ($n = 5$), and 2), trainee inexperience ($n = 5$), and 3) a failure to supervise the resident during the operation ($n = 4$).

The second most frequently cited allegation was incorrect diagnosis or treatment of the patient's medical condition ($n = 8$, 17%). Three of these allegations occurred during the initial otolaryngology clinic visit where the patient was seen by a resident physician and 5 occurred in the perioperative period. Of the 8 cases alleging incorrect diagnosis or treatment, 3 cases also concurrently alleged that the resident physician failed to communicate and inform the attending physician of any issue.

Less commonly, the topic of informed consent arose without concurrent allegation of procedural error. Out of the 20 cases included in the study, there were 4 allegations referencing lack of informed consent for procedural complications and 6 allegations referencing lack of informed consent for residents being present during the procedure.

Adverse medical outcomes

The medical outcomes of each of the 20 cases were categorized (**Table 3**). The most common outcomes included anoxic encephalopathy leading to a persistent vegetative state ($n = 7$, 35%) and death ($n = 4$, 20%). Other less commonly reported outcomes included cranial nerve injuries (facial nerve, recurrent laryngeal nerve, accessory nerve XI) ($n = 4$, 20%), hearing loss ($n = 2$, 10%), vision loss ($n = 2$, 10%) and cerebrospinal fluid leak ($n = 1$, 5%).

Legal outcomes: settlements and awards

A total of 9 (45%) cases had verdicts in favor of the plaintiff, whereas 5 cases had verdicts in favor of the defense (25%). Six (30%) cases ended in a settlement. The overall median award to the plaintiffs was \$617,500 (IQR, \$24,490–\$2,937,500). Of the cases that were ruled in favor of the plaintiff, the median payout was \$2,200,000 (IQR, \$750,000–12,876,069). Of the cases that were settled, the median payout was \$792,500 (IQR, \$458,750–3,800,000).

DISCUSSION

In the current study, we analyzed state and federal malpractice litigation wherein otolaryngology trainees were involved or named as defendants. This is the first report to specifically analyze trainee involvement in otolaryngology malpractice cases. Our analysis highlights the importance of procedural training, informed consent, and communication between patients, trainees, and attending physicians. These areas for improvement are similar to those identified in previous literature on trainee litigation in other specialties.²⁷⁻²⁹ Given the significant healthcare costs associated with litigation and its contribution to physician burnout, it is critical to understand the causes of

malpractice suits.^{4,7,6,11} In doing so, the specialty can adjust medical training, reduce defensive medicine practices, and improve patient outcomes.

Procedural error and incorrect diagnosis/treatment by a trainee were the most common allegations by plaintiffs. There is a steep learning curve for trainees as they acquire new skills during training, yet patients hold trainees to the same standard as attending physicians despite trainees not having matured their surgical skills.³⁰ Certain steps may be taken to mitigate the risk of complications, such as increasing the experience threshold at which trainees can independently perform procedures (graduated autonomy).³¹ Increasing use of simulation courses for trainees to practice maneuvers and prepare for medical errors in a controlled setting are options for accelerating the learning curve.³²⁻³⁵ These simulations might include airway emergencies, near miss events, common surgical errors, and post-surgical complications.³⁶ With regards to otolaryngology specifically, 3D printed models have been used to mimic complex surgical anatomy during temporal bone dissection and endoscopic sinus surgery in order to allow hands on surgical practice.³⁷⁻⁴² Other training modalities such as virtual reality and artificial intelligence simulators are also emerging, though their use is currently limited by the lack of haptic feedback and the cost of training.^{37,43-46}

Importantly, our sample included allegations that residents failed to inform the supervising physician of the severity of postoperative complications. Failure to recognize life threatening findings, fear of repercussions, or miscommunication may play a role in residents failing to report concerning findings to attending physicians. Failure to diagnose or initiate appropriate treatment for such cases could be due to an incomplete clinical gestalt early in residency. Otolaryngology in particular consists of pathology that is beyond the scope of most medical school curriculums in the United States and abroad.⁴⁷⁻⁵¹ Allowing for weekly interactive didactic sessions that not only provide traditional lecture style learning, but also incorporate case based applications can improve short- and long-term retention of information.⁵²⁻⁵⁵ Simulations coupled with effective didactic sessions can help residents recognize emergencies or critical

diagnoses, decrease their response time, and allow for appropriate action or escalation of care. Taken together, this could effectively reduce medical errors and improve outcomes for patients.

Lack of informed consent regarding procedural risks or resident participation was also commonly alleged. Some plaintiffs claimed they were not appropriately informed of procedural risks, while others claim they were not aware of resident involvement in surgical care. These miscommunication claims suggest a disconnect in patient-physician relationships and an incomplete consent process. An important first step in implementing a standardized informed consent process involves training residents to acquire consent through didactic sessions and standardized patient encounters.⁵⁶⁻⁵⁹ Due to the complicated nature of many ENT procedures, it is possible for trainees to be unaware of all possible complications and procedural risks. Particularly at teaching hospitals and clinics, where residents are regularly involved in patient care, we recommend that informed consent process is standardized to include disclosure of trainees participating in all care provided.⁶⁰⁻⁶² Such open communication and detailed documentation are vital parts of a positive patient-physician relationship and can minimize litigation.²⁰

The majority of cases included in this study were ruled in favor of the plaintiffs. Importantly, even when cases were ruled in favor of the defendants, medical malpractice lawsuits can leave lasting consequences. First, malpractice litigation costs the healthcare system billions of dollars in fees, lost productivity, and the costs of defensive medicine.^{4,11} In just the lawsuits included in this study, over 63 million dollars in payouts were issued. In addition, many studies have linked malpractice lawsuits to physician depression, burnout, and decreased quality of life.^{4,11,63-65} One study reported that many trainees are unaware of their vulnerability to malpractice lawsuits during training.¹¹ This suggests that there is a lack of resident education concerning malpractice lawsuits. Therefore, the authors recommend providing trainees with formal malpractice education that integrates faculty disclosure and the cases reported herein.

This would be an important step toward reducing medical errors and helping trainees understand available resources should they be implicated in litigation.^{36,66}

From an international perspective, litigation in the field of otolaryngology has been examined in great detail.⁶⁷⁻⁷¹ In a recent study in China, the highest rates medical malpractice claims among all specialties were observed in otolaryngology (51.9%).⁷² Despite this preponderance of litigation, no prior international literature exists on incidents of trainee malpractice cases. Given that Otolaryngologists in training would arguably derive the most benefit from enhanced education on the topic of medicolegal issues, one would expect more studies from abroad to focus on legal pitfalls encountered by trainees. Further investigation of resident and fellow malpractice cases in other countries are warranted, which collectively would serve to inform education-based efforts.

There are several limitations to this study. ² First, the LexisNexis legal database only contains cases conducted at the state and federal level. A number of malpractice cases are resolved prior to trial, limiting the number of cases publicly available. Furthermore, LexisNexis does not standardize the information, meaning the medical, legal and demographic information provided was variable and limited. The medical records for the plaintiffs and the cases were not available, so the cases could not be verified for the accuracy of the clinical events that occurred. Moreover, LexisNexis relies on individual attorneys to submit trial documents. There could be allegations of medical malpractice that have not yet been released to this database by the involved law firms, which could explain why fewer reported cases were observed in more recent decades. Whether the alleged errors were attributable to factors that could be addressed in training or intrinsic personal skill remains a matter of speculation. Finally, cases that involved otolaryngology trainees could have been excluded if these trainees were not explicitly mentioned using one of the search criteria utilized in this study. Additionally, trainees were not listed with personal identifying information in case records, so there was no way to check for potential misclassification of trainees.

CONCLUSION

Otolaryngology residents and fellows can be involved in malpractice lawsuits for both procedural and nonprocedural events. This study highlights the importance of malpractice education specifically within the domains of procedural errors, informed consent, proper diagnosis and management, and clear communication within patient care teams. Limiting malpractice litigation by addressing these domains holds the potential to decrease trainee burnout and, more importantly, improve patient outcomes.

ARTICLE HIGHLIGHTS

Research background

Errors, misdiagnoses, and complications can occur while trainees are involved in patient care. Analysis of such events could reveal areas for improvement by residency and fellowship programs.

Research motivation

Understand lawsuits tried at the state and federal level involving otolaryngology trainees.

Research objectives

This study examines lawsuits tried at the state and federal level involving otolaryngology trainees.

Research methods

The LexisNexis database, an online legal research database containing state and federal case records from across the United States, was retrospectively reviewed for malpractice cases involving otolaryngology residents or fellows from January 1st 1990 to December 31st 2020. Case data collected: plaintiff/trainee/defendant characteristics, allegations, medical outcomes, and legal outcomes.

Research results

Over the study period, 20 malpractice lawsuits involving otolaryngology trainees were identified. Plaintiffs raised numerous allegations including procedural error ($n = 12$, 25.5%), incorrect diagnosis and/or treatment ($n = 8$, 17.0%), and lack of knowledge of trainee involvement ($n = 6$, 12.8%). Nine cases (45%) had verdicts in favor of the plaintiff, whereas 5 cases (25%) had verdicts in favor of the defense. Six cases (30%) ended in a settlement. Awards to plaintiffs were heterogenous, with a median of \$617,500 (range \$32K–17M) for settled cases and verdicts favoring plaintiffs.

Research conclusions

The findings enclosed herein represent the first published analysis of trainee involvement in otolaryngology malpractice cases held at the state/federal level. Otolaryngology trainees can be involved in lawsuits for both procedural and nonprocedural events. This study highlights the importance of education specifically in the domains of procedural errors, informed consent, proper diagnosis/management, and clear communication within patient care teams.

Research perspectives

Training programs should incorporate these study findings into effective simulation courses and didactic sessions. Educating trainees about common pitfalls holds the promise of decreasing healthcare systems costs, reducing trainee burnout, and, most importantly, benefiting patients.

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