Medical Malpractice Litigation Trends Following Primary Total Hip and Knee Joint Arthroplasty: An Updated Nationwide Analysis

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INTRODUCTION: Total joint arthroplasty (TJA) is highly litigious within orthopaedic surgery. Although prior research has assessed prevalent causes and outcomes of TJA-related lawsuits before 2018, the dynamic healthcare environment demands regular reevaluations. This study aims to provide an updated analysis of the predominant causes and outcomes of TJA-related malpractice lawsuits and analyze outcomes of subsequent appeals following initial jury verdicts.

METHODS: The Westlaw legal database was queried for cases between 2018 and 2022 involving primary hip and knee TJA in the United States. The database was queried using the following keywords: “hip,” “knee,” “arthroplasty,” “replacement,” “medical,” and “malpractice.” Cases were listed as original rulings or appeals and reviewed for the alleged negligence, damages incurred, demographics, and verdicts. Alleged negligence included procedural errors, postsurgical errors, failure to inform, failure to treat, diagnostic error, failure to refer or consult, and unnecessary surgery. Damages incurred included complications and adverse events due to the surgeon or institution’s alleged negligence. Appeals were further assessed for appellant details, preliminary judgment, and outcomes. The findings were compared to previous litigation data using descriptive statistics.

RESULTS: The final cohort comprised 59 cases: 33 (56%) total knee arthroplasty (TKA) and 26 (44%) total hip arthroplasty (THA) from 2018-2022. TKA cases primarily cited pain (24%), while THA cases cited nerve injuries (31%) as demonstrated in Table 1 and Table 2. Negligence largely stemmed from procedural error (47%), postsurgical error (27%), and failure to inform (14%). Vertics favored the defense in 66% of cases. 90% of primary verdicts led to appeals, with 71% by the plaintiff. A high proportion of cases (90%) went to appeal, with plaintiffs initiating 71% of these appeals. Initial rulings were upheld in 87% of plaintiff appeals, whereas only 53% of defendant appeals retained the initial judgment.

DISCUSSION AND CONCLUSION: This study demonstrates notable changes in the alleged damages over time, which could represent a new trend in medical malpractice litigation in arthroplasty. The primary causative factor of litigation shifted from infection to ongoing/worsening pain postoperatively in TKA cases over time. While nerve injury TKA cases have decreased, it remains the most cited damage in THA cases. Many of the technical causes of malpractice litigation, such as loosening, anesthesia, leg length discrepancy, dislocation, and malalignment, were either rarely cited or not at all found in this newer cohort of cases. This could be explained by the advancements in surgical techniques and implants in arthroplasty surgery. Procedural error made up close to half (47%) of the alleged type of negligence, followed by postsurgical error, failure to inform, and failure to treat, suggesting that surgeons are likely to be held liable for a perceived mistake during the procedure. Defense verdicts are common, but there is an increasing number of verdicts against defendants. Plaintiffs are more likely to appeal but are less successful in appellate courts. These findings allow surgeons and policymakers address emerging litigation trends in TJA to enhance patient care, mitigate risks, and improve the overall quality of TJA.

Damages Incurred TKA	2018-2022	2008-2017	% Change
Continuing/worsening pain	24%	13%	11%
Other	24%	5%	19%
Infection	12%	33%	-21%
Nerve injury	12%	5%	7%
Death	9%	13%	-4%
Leg amputation	6%	6%	0%
Vascular injury	6%	6%	0%
DVT/PE	6%	5%	1%
Malalignment	3%	13%	-10%
Dislocation	3%	11%	-8%
Perioperative fracture	3%	6%	-3%
Loosening	0%	7%	-7%
Compartment syndrome	0%	7%	-7%
Hematoma	0%	5%	-5%
Leg-length discrepancy	0%	2%	-2%
Anesthesia related	0%	2%	-2%
Osteosarcoma	0%	2%	-2%

Damages Incurred THA	2018-2022	2008-2017	% Change
Nerve injury	31%	38%	-7%
Death	19%	6%	13%
Infection	15%	9%	6%
Continuing/worsening pain	12%	11%	1%
Other	12%	5%	7%
Perioperative fracture	8%	11%	-3%
DVT/PE	8%	3%	5%
Leg-length discrepancy	4%	26%	-22%
Dislocation	0%	12%	-12%
Malalignment	0%	3%	-3%
Loosening	0%	3%	-3%
Leg amputation	0%	2%	-2%
Vascular injury	0%	2%	-2%
Hematoma	0%	2%	-2%
Anesthesia related	0%	2%	-2%
Compartment syndrome	0%	0%	0%
Osteosarcoma	0%	0%	0%