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Litigation patterns in inguinal hernia surgery: a 25 year review

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ARTICLE INFO

Article history:
Received 3 August 2017
Received in revised form
15 June 2018
Accepted 19 June 2018
Available online xxx

Keywords:
Inguinal hernia
Malpractice
Litigation

ABSTRACT

Background: Inguinal herniorraphyis among the most common procedures performed by general surgeons, but risk factors for litigation related to this surgery are poorly defined.

Methods: Cases were retrieved by searching the Westlaw database from 1991 through 2016 using the search terms "inguinal hernia" OR "inguinal herniorrhaphy" OR "inguinal hernioplasty" and "medical malpractice." Data were compiled on the demographics of the patient, operative case details, nature of injury, legal allegations, verdicts, and indemnities.

Results: Forty-six cases met inclusion criteria and were selected for review. Verdicts for the defendant predominated (67%). The average plaintiff's monetary award for a plaintiff verdict or settlement was $1.21 million (median $500,000). The most frequent legal argument was improper performance ($n = 35$, 76%), followed by failure of informed consent ($n = 14$, 30%). The most common complications were nerve/chronic pain ($n = 20$, 45%) and testicular damage ($n = 10$, 23%). No association was discovered between case outcome and patient gender ($P = 0.231$) or age ($P = 0.899$). Case outcome was not different between open and laparoscopic repairs ($P = 0.722$). Patient mortality was not associated with case outcome ($P = 0.311$). There was no chronological trend in case outcome or award amount. Settlement award amounts were not significantly different than plaintiff awards ($P = 0.390$).

Conclusions: Successful litigation after inguinal hernia surgery was relatively infrequent—only 21.7%—with an additional 10.9% resulting in settlement awards. Case outcome in litigation for hernia surgery was not predicted by patient demographics, type of procedure, or type of complication in this data set.

Published by Elsevier Inc.

Introduction

Medical malpractice torts are a seemingly inevitable aspect of practicing medicine in the United States. A 2008 analysis estimated the national cost of medical liability to be over $55 billion.[1] Across all specialties, claims result in substantial costs to practitioners and their insurance providers, at an average of $20,000-$30,000 per claim and $40,000-$500,000 per claim with an indemnity.[2]

In comparison with other specialties, general surgeons are at relatively high risk for litigation.[3] In addition, the size of payment in surgical malpractice claims is reported to be

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0022-4804/$ – see front matter Published by Elsevier Inc.
https://doi.org/10.1016/j.jss.2018.06.049

higher than claims across all specialties, with a median payment of $132,915.[4] Surgeons are increasingly faced with malpractice claims, with 15% of surgeons encountering a claim annually and 99% facing a claim by the age of 65 y. In addition, over 60% of surgeons will face an indemnity.[3] Consequently, malpractice insurance premiums have risen by as much as 20% per y for general surgeons nationally in recent years.[5] Moreover, the financial payouts resulting from insurance claims have grown in size and frequency, prompting increasing calls for reform and recent changes in medical malpractice laws.[6]

The consequences of frequent litigation are not solely financial. Studies indicate that malpractice defense contributes to physician burnout, depression, and suicidal ideation.[7]

Medical litigation has been carefully examined for a variety of other procedures within the scope of general surgery.[8-10] However, no thorough analysis has yet been conducted pertaining to patterns in inguinal hernia surgery. The purpose of this study is to better understand the causes and outcomes of lawsuits involving inguinal hernia surgery, to improve patient care and avoid potential litigation. We believe this to be important as inguinal hernia is one of the most commonly encountered general surgery pathologies in the world. Approximately 27% of males and 3% of females will develop one in their lifetime.[11]

Methods

The Westlaw database (West Publishing Co, St. Paul, MN) was queried for US civil trials conducted in the United States involving claims of medical malpractice in inguinal hernia surgery between 1991 and 2016. Verdicts and formal settlements published by 14 judicial sources are published in the database and encompass cases from all 50 states and the District of Columbia. The database does not include cases dropped before reaching a court docket. Sixty-seven case summaries were obtained using the search terms "inguinal hernia" OR "inguinal herniorrhaphy" OR "inguinal hernioplasty."

The Westlaw database is based on publicly available records. In many cases, patient and physician identity were included in the source material available from Westlaw, although they were de-identified in our reporting.[12]

Of these, 46 met criteria for inclusion in this study. Cases were included if a physician was named as a defendant, the case related to that physician's therapeutic intervention on inguinal hernia, and the injuries were alleged to result from that intervention. Cases that alleged harm not directly related to inguinal hernia surgery were excluded.

Data were extracted and analyzed using Microsoft Excel (Microsoft Corp, Redmond, Washington). The data collected included patient age and gender, outcomes of the cases and indemnities, type of injury, allegations, and procedure type. Other pertinent case details collected were pediatric, bilaterality, surgery for recurrence, and presence of incarceration or strangulation at the time of surgery. Case reports were reviewed by the panel of authors as a group and consensus was reached. A Fisher's exact test was completed to determine which variables predicted a favorable or unfavorable outcome for the defendant. Statistical testing was not performed for categories with 10 or fewer data points. For plaintiff verdicts and settlements, the Mann–Whitney *U* test was used to determine if any of these variables made a significant difference in the amount of the award. This study was exempt from the local review by the Tripler Army Medical Center Department of Clinical Investigation approval.

Table 1 – Patient characteristics.

Case characteristic	Totals	Plaintiff/Settlement	Defendant	*P* value
Total	46	15	31	
Age ≤ 50 y	16	7	9	0.120
Age >50 y	13	2	11	
Male	37	10	27	0.231
Female	8	4	4	
Mean age	42	42.6	41.8	0.900
1991-2005	22	6	16	
2006-2016	24	9	15	0.518
Open/NOS	33	9	24	
Laparoscopic	12	5	7	0.722
Bilateral	10	3	7	*
Recurrent	5	2	3	*
Incarcerated/strangulated	2	0	2	*
Pediatric	4	0	4	*
Secondary procedure	2	1	1	*

* Fisher's test was not performed when sample size was 10 or less.