INTRODUCTION

Patients are increasingly using the Internet to supplement medical information from their physicians. An estimated 74% of adults use the Internet with a significant number stating that Internet information impacted personal medical decision making. 1-3,4

Robotic partial nephrectomy is one of several treatment options discussed in a select cohort of patients with a renal mass amenable to this approach. 1

The quality of information on the Internet is highly variable. Claims are often unsubstantiated and seldom are references included. 5

METHODS

Two common search engines (Google and Yahoo) were used to search the term "robotic nephrectomy.

The top 50 sites from each search engine were analyzed in regards to:

• Type of site and information regarding robotic nephrectomy
• Surgical outcomes
• Oncologic outcomes
• Renal function outcomes
• Recovery outcomes

In addition, the use of information from the Intuitive Surgical site, references to peer-reviewed studies, information regarding cost, and the presentation of laparoscopic partial nephrectomy as an alternative were evaluated.

RESULTS

Of the 100 sites, 64 were surgeon/provider sites, 20 links to publications, 5 medical news sites, 3 patient support sites, 1 meeting program, 5 were other, and 2 were the Intuitive site.

Analysis of all 64 surgeon/provider sites showed that a substantial number of sites made non-evidence-based claims regarding surgical outcomes (44%), oncologic outcomes (11%), kidney function outcomes (9%), and recovery (41%).

Laparoscopic partial nephrectomy was not mentioned in 44% of surgeon/provider sites.

With regard to information from Intuitive used by provider sites, 3% had links, 6% verbatim information, and 6% information with similar wording.

Only 8% of provider sites listed any references. Zero surgical/provider sites and only one site (medical news) made any comparison of cost between the different surgical options.

In addition to the findings above, analysis of all 64 surgeon/provider sites showed that a substantial number of sites made non-evidence-based claims regarding:

Surgical Outcomes

Relapse rates (11%)

Oncologic Outcomes

Local recurrence (21%)

Function Outcomes

Kidney function outcomes (10%)

Recovery

Mortality (6%)

EXAMPLES OF CLAIMS

1. "The da Vinci robotic system has made the operation much safer to perform."

2. "This allows the surgeon to perform all the steps of a partial nephrectomy—including careful dissection, tumor identification and excision, and renal capsule reconstruction—with far greater surgical precision, ease and efficiency compared to conventional laparoscopy."

CONCLUSIONS

As with previous studies of robotic surgery in Urology, we found that:

• Surgeons provide the majority of Internet information regarding robotic renal surgery
• Information presented is highly variable
• Claims made regarding robotic surgery are often overly positive and infrequently supported by peer-reviewed references.

To a degree, these findings motivate further, more rigorous comparative study of robotic vs. traditional (laparoscopic and open) approaches, to improve the evidence base upon which patients may be informed.

The quality and reliability of consumer-directed information on the Internet is of increasing importance:

• Approximately 80% of Americans have home Internet access
• Pursuit of health-related information is the 3rd most common reason for accessing the Internet
• Approximately 70% of Internet health information seekers state that such information influences care decisions

REFERENCES


