

Evaluating the Source and Content of Internet Information Regarding DeQuervain's Tenosynovitis

Kyle Plusch¹, Daniel Zev Givner, Jack Carfagno, Moody Kwok², Pedro K Beredjiklian²

¹Rothman Orthopaedic Institute, ²Rothman Institute

INTRODUCTION:

Patients are increasingly looking to the internet for information about their medical diagnoses, but there is little regulation on the content of these websites. With the oversaturation of healthcare content available, the quality of information varies tremendously from website to website. Therefore, the purpose of this study was to investigate the quality of the information available on the internet regarding DeQuervain's tenosynovitis. We hypothesized that the informational content on the internet would provide a reasonably complete picture of the condition based on our current understanding.

METHODS:

The search phrasing "DeQuervain' OR 'DeQuervain's' OR 'Radial styloid tenosynovitis' OR 'DeQuervain's synovitis' OR 'Wrist tendonitis'" was used to mimic how patients would likely search for information on the disease. This search was entered into the five most commonly used search engines. On each search engine, the first 50 URLs were recorded, including sponsored sites. The 250 total sites were filtered to remove duplicate sites and URLs linking to other search engines, resulting in a final list of 109 websites for informational scoring. A previously published information evaluation protocol was used to grade each website. Each site was graded according to these guidelines by two authors and scored based on Authorship, Content, Disease Summary, Treatment Options, Pathogenesis, Complications, and Results. A third author resolved any conflict on Authorship or Content before analysis. The resultant "Informational Value" is the sum of the Disease Summary, Treatment Options, Pathogenesis, Complications, and Results, and can range from 0-100. Statistical analysis was performed using the Student's t-test for continuous variables.

RESULTS:

Sixty-six (60.6%) of the websites evaluated were authored by an academic institution or a physician, and these all provided conventional information. Thirty-two (29.4%) of the sites were commercial sites or sold commercial products. The remaining 11 websites (10.1%) had nonphysician, unidentified, or lay authorship (Table 1). The informational mean score for the sites was 46.7 out of a maximum of 100 points. The mean scores for each specific content section are as follows: Disease summary, 11.1 out of 30; Treatment options, 15 out of 20; Pathogenesis, 9 out of 20; Complications of treatment, 4.2 out of 15; Results of treatment, 7.4 out of 15 (Table 2). The average informational score on the academic or physician authored websites was 53.3 out of 100 points, compared to 36.7 out of 100 for the remainder of the sites. This difference was statistically significant ($p < 0.01$). The mean informational score for the 14 sponsored websites was 11.6 out of 100.

DISCUSSION AND CONCLUSION:

We concluded that internet information on DeQuervain's Tenosynovitis is of poor quality and incomplete. Based on our findings, patients looking for information about DeQuervain's tenosynovitis on the internet should be advised to focused on academic and physician authored sites. While individual sites are usually not a complete source of information, viewing multiple academic or physician authored sites will provide the highest information quality while avoiding commercial bias and misleading information.

Table 1 – authorship/content

	Academic	Physician	Nonphysician	Commercial Site	Commercial product	Lay	Unidentified	Total
Overall	30	36	7	17	15	0	4	109
Conventional	30	36	4	14	0	0	2	86
Unconventional	0	0	2	3	0	0	1	6
Misleading	0	0	1	0	9	0	0	10
Noninformational	0	0	0	0	6	0	1	7

Table 2 – Informational scores

	Disease summary	Tx options	Pathogenesis	Complications of Tx	Results of Tx	Total
All sites	11.1	15.0	9.0	4.2	7.4	46.7
All sites excluding ads	12.2	16.6	9.9	4.8	8.4	51.9
Academic/Physician authored only	12.4	16.7	9.9	5	9.3	53.3
Excluding Academic/Physician authored	9.2	12.3	7.7	3.1	4.4	36.7
Ad	4.2	3.8	2.9	0.5	0.3	11.6