A Quality Assessment of YouTube Content on Cubital Tunnel Syndrome

Christopher J. Lama[1], Joseph C. Donnelly[1], Daniel Yang[1], Davis A. Hartnett[1], Lindsay R. Kosinski[2], Julia A. Katarincic[2], Joseph A. Gil[2]

[1]Warren Alpert Medical School of Brown University, [2]Department of Orthopaedic Surgery at Brown University

BROWN Department of Orthopaedics

INTRODUCTION

- 75% of patients with chronic illnesses report making treatment decisions based on online health information, and YouTube is the world's second most trafficked website.[1]

- Cubital Tunnel Syndrome (CuTS) is the second most common compressive neuropathy of the upper extremity.[2]

- The accuracy of information in the YouTube library for CuTS has yet to be assessed.[3-7]

OBJECTIVES

- The purpose of this study was to critically evaluate the quality, reliability and accuracy of YouTube content on videos concerning CuTS, including surgical and conservative treatment plans.

- We hypothesize that (1) the information regarding CuTS would generally be of low quality and reliability, and (2) the highest quality information most useful to users would come from medical, academic, or physician sources.

METHODS

- A cross-sectional search and analysis of the first 50 YouTube search results on CuTS were assessed using the JAMA criteria, the Global Quality Score (GQS), and our own *Cubital Tunnel-Specific Score (CTSS).

*see supplementary data for breakdown of CTSS scoring system

RESULTS

- The average video saw 72,108 views, with non-physician created content having the highest average views at 111,789

- Average scores were low for all 3 scoring systems used (Figure 1)
  - JAMA: 2.4/4 ± 0.7
  - GQS: 2.8/5 ± 1.3
  - CTSS: 7.5/21 ± 4.3

- Positive independent predictors of GQS and CTSS included physician created content and video duration (Table 1)

- Disease-specific information and surgical technique/approach-related contents had significantly greater mean GQS and CTSS scores when compared to every other content category
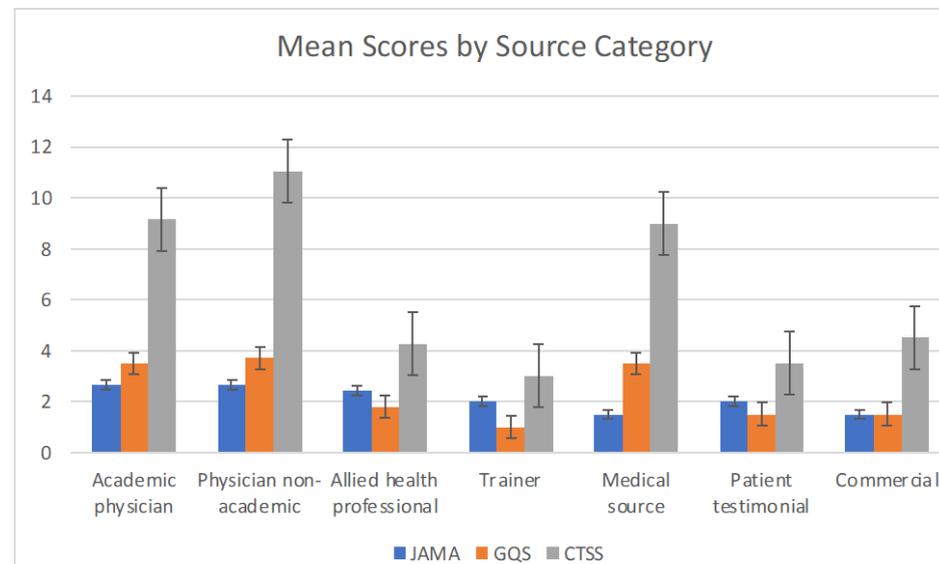

Figure 1. Mean CTSS, GQS, and JAMA scores per video source category. Mean scores are interobserver averages. *medical source: medical content or animations from educational/health websites

Table 1. Linear Regression of Variables and Quality/Reliability Scores

	JAMA		GQS		CTSS	
	ß-coeff	p-value	ß-coeff	p-value	ß-coeff	p-value
Duration (min)	0.027	0.18	0.102	**<0.001**	0.374	**<0.001**
VPI	0.004	0.10	0.002	0.58	0.001	0.96
Source Category*						
Academic	0.509	0.13	1.871	**<0.001**	4.553	**<0.001**
Physician	0.419	0.10	1.651	**<0.001**	4.639	**<0.001**
Other	-0.319	0.41	1.021	0.06	3.030	0.12
Content Category†						
Disease-specific info.	0.075	0.83	0.676	0.16	3.686	**<0.05**
Surgical tech./approach	-0.114	0.81	0.858	0.18	5.283	**<0.05**
Nonsurgical mgmt.	-0.184	0.66	0.442	0.43	2.449	0.23
Other	-0.181	0.77	-0.196	0.82	2.130	0.49
Disclaimer	0.241	0.34	0.113	0.74	0.405	0.74
Comments	-0.002	0.08	0.001	0.67	0.002	0.79

CONCLUSIONS

- YouTube is a source of highly accessible information on CuTS, but the average video presents inadequate information. Directing patients towards higher quality resources can be a meaningful component of patient education

REFERENCES & SUPPLEMENTARY DATA

Scan Me