

Evaluating the Impact and Educational Value of YouTube Videos on Nail Biopsy Procedures

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PRACTICE POINTS

- A nail biopsy is sometimes necessary for histopathologic confirmation of a clinical diagnosis.
- YouTube has become a potential educational platform for physicians and patients to learn about nail biopsy procedures.
- Physicians and patients interested in learning more about nail biopsies are unlikely to find reliable and comprehensible information on YouTube; therefore, there is a need for updated reliable video content on nail biopsies geared toward both physicians and patients.

To the Editor:

Nail biopsy is an important surgical procedure for diagnosis of nail pathology. YouTube has become a potential instrument for physicians and patients to learn about medical procedures.^{1,2} However, the sources, content, and quality of the information available have not been fully studied or characterized. Our objective was to analyze the efficiency of information and quality of YouTube videos on nail biopsies. We hypothesized that the quality of patient education and physician training videos would be unrepresentative on YouTube.

The term *nail biopsy* was searched on January 29, 2019, and filtered by relevance and rating using the default YouTube algorithm. Data were collected from the top 40 hits for the search term and filter coupling. All videos were viewed and sorted for nail biopsy procedures, and then those videos were categorized as being produced by a physician or other health care provider. The US medical board status of each physician videographer was determined using the American Board of Medical Specialties database.³ DISCERN criteria for assessing consumer health care information⁴ were used to interpret the videos by researchers (S.I. and S.R.L.) in this study.

From the queried search term collection, only 10 videos (1,023,423 combined views) were analyzed in this study (eTable). Although the other resulting videos were tagged as *nail biopsy*, they were excluded due to irrelevant content (eg, patient blogs, PowerPoints, nail avulsions). The mean age of the videos was 4 years (range, 4 days to 11 years), with a mean video length of 3.30 minutes (range, 49 seconds to 9.03 minutes). Four of 10 videos were performed for longitudinal melanonychia, and 5 of 10 videos were performed for melanonychia, clinically consistent with subungual hematoma. Dermatologists, plastic surgeons, and podiatrists produced the majority of the nail biopsy videos. The overall mean DISCERN rating was 1.60/5.00 (range, 1–3), meaning that the quality of content on nail biopsies was poor. This low DISCERN score signifies poor consumer health information. Video 2 (published in 2015) received a DISCERN score of 2 and received almost 1 million views, which is likely because the specific channel has a well-established subscriber pool (4.9 million subscribers). The highest DISCERN score of 3, demonstrating a tangential shave biopsy, was given to video 4 (published in 2010) and only received about 17,400 views (56 subscribers). Additionally, many videos lacked important information about the procedure. For instance, only 3 of 10 videos demonstrated the anesthetic technique and only 5 videos showed repair methods.

YouTube is an electronic learning source for general information; however, the content and quality of information on nail biopsy is not updated, reliable, or abundant. Patients undergoing nail biopsies are unlikely to find reliable and comprehensible information on YouTube; thus, there is a strong need for patient education in this area. In addition, physicians who did not learn to perform a nail biopsy during training are unlikely to learn this procedure from YouTube. Therefore, there is an unmet need for an outlet that will provide updated reliable content on nail biopsies geared toward both patients and physicians.

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The authors report no conflict of interest.

The eTable is available in the Appendix online at www.mdedge.com/dermatology.

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APPENDIX

eTABLE. Data Collection for YouTube Nail Biopsy Videos^a

Commentator	YouTube Link	No. of Views	Age of Video	Length, min	Anesthesia	Tourniquet	Indication	Technique	Nail Plate Avulsion	Repair	Hemostasis With Electrocautery	DISCERN Score ^b
US board-certified dermatologist	https://www.youtube.com/watch?v=ZSq0tbb10s	550	6 mo, 16 d	3.54	Wing block	Yes, phlebotomy tourniquet	Longitudinal melanonychia	4-mm punch through the nail bed and nail plate	No	No	Yes	1
US board-certified dermatologist	https://www.youtube.com/watch?v=gDD-wfSWkk&has_verified=1	944,671	3 y, 6 mo, 6 d	3.25	Unknown	None	Growth on nail bed	Excisional biopsy	Complete nail avulsion	No	None	2
US board-certified dermatologist	https://www.youtube.com/watch?v=0tHPPJNZF5Y	66	4 d	3.30	Unknown	Yes, fragment of a glove	Melanonychia	Two 4-mm punch (distal nail matrix and nail bed)	Complete nail avulsion	Yes	None	1
France board-certified dermatologist	https://www.youtube.com/watch?v=F83an_zZUWM	17,398	8 y, 7 mo, 7 d	9.03	Unknown	Yes, rolled glove	Longitudinal melanonychia	Tangential shave biopsy	Proximal nail avulsion	Yes	None	3
France board-certified dermatologist	https://www.youtube.com/watch?v=gDMizJuoNals	11,782	10 y, 7 mo, 16 d	2.14	Unknown	Yes, rolled glove	Longitudinal melanonychia	Excisional biopsy	Partial nail avulsion	Yes	None	2
Canada board-certified plastic surgeon	https://www.youtube.com/watch?v=hJ6a22v78LJ	7850	2 y, 8 mo, 20 d	3.54	Unknown	Yes, 2 commercial finger tourniquets	Melanonychia	Excisional biopsy	No	Yes	None	2
India board-certified plastic surgeon	https://www.youtube.com/watch?v=pv6iwA3PNo	85	1 mo, 15 d	1.41	Nerve block	Yes, rolled glove	Melanonychia	4-mm punch through the nail bed	Proximal nail plate excision	No	None	1
US board-certified podiatrist	https://www.youtube.com/watch?v=k0ZkqkREIDw	15,257	5 y, 4 mo, 10 d	0.49	Unknown	None	Melanonychia	4-mm punch through the nail bed	Complete nail avulsion	No	None	1
Unknown	https://www.youtube.com/watch?v=NXYRyM28KGk	24,810	6 y, 10 mo, 17 d	5.31	Nerve block	Yes, rolled glove	Longitudinal melanonychia	Excisional biopsy	Complete nail avulsion	Yes	None	2
Unknown	https://www.youtube.com/watch?v=mXpmG2TswlQ	954	1 y, 7 mo, 8 d	1.01	Unknown	None	Melanonychia	4-mm punch through the nail bed	No	No	None	1

^aThe term *nail biopsy* was searched on January 29, 2019, and filtered by relevance and rating.

^bDISCERN is a quality index instrument. The DISCERN scores (1 [no] to 5 [yes]) are derived from a brief questionnaire that provides users with a valid and reliable way of assessing the quality of written information on treatment choices for a medical problem.