Original Article

YouTube Videos on Ingrown Toenails: Quality and Content

Cansu Altınöz Güney[1], Huriye Aybüke Koç[2], Güneş Gür Aksoy[3]
[1]Clinic of Dermatology and Venereology, Dinar State Hospital, Ayfonkarahisar, Türkiye
[2]Department of Dermatology and Venereology, Giresun University Faculty of Medicine, Giresun, Türkiye
[3]Clinic of Dermatology, Private Practice, Ankara, Türkiye

Abstract

Aim: Ingrown toenails affect quality of life, leading patients to seek information online, often on YouTube. This study aims to analyze narrator types, viewer engagement, content distribution, and video quality of YouTube videos on ingrown toenails.

Materials and Methods: On May 14, 2024, the first 100 YouTube videos related to "ingrown nail" and "onychocryptosis" were collected, excluding duplicates, non-English, irrelevant, or ads. The number of views, likes, comments, and narrators for non-informative videos (group A) were recorded. Informative videos (group B) were additionally coded across seven categories (symptoms, causes, prevention, foot soaks, podological, conservative, and surgical treatments), and evaluated for quality using DISCERN and global quality score.

Results: Non-informative videos attracted more views and engagement than educational ones. Most informative videos were created by podiatrists, doctors of podiatric medicine and surgery who specialize in the care of feet and ankles, and physicians, mainly focusing on surgical treatment, while nail technicians, professionals trained in cosmetic nail care and pedicure services, emphasized cosmetic and conservative approaches. Health websites more often covered symptoms, causes, and prevention than other topics. Videos from podiatrists achieved the highest quality scores, while dermatologists were notably absent.

Conclusion: Despite YouTube's lack of regulation, it is encouraging that ingrown nail videos are primarily created by doctors, providing information from symptoms to treatment options. However, content varies by narrator. Notably, less informative nail extraction and pedicure videos achieve higher viewer engagement. Podiatrist videos are of higher quality than those by nail technicians and physicians. Dermatologists can contribute by creating accurate, up-to-date videos to enhance public knowledge.

Keywords: Health education, information dissemination, ingrown, nails, social media

Introduction

Ingrown nail, medically termed onychocryptosis, occurs when the nail plate embeds into the nearby soft tissue, usually the lateral nail fold. It is a benign condition, but it can profoundly affect one's quality of life. The pain can be intense, hindering daily activities such as walking, running, and playing, as well as impacting work, choice of footwear, and even sleep.[1] Previous studies have reported a prevalence of 2.5% to 5% for ingrown toenail. In recent years, both the incidence and prevalence have risen, likely due to greater health awareness and possibly linked to lifestyle changes. It is suggested that increased physical activities contribute to these observed trends.[2] Ingrown nails can occur at any age, but they are most prevalent among teenagers and young adults, often affecting the hallux nails.[3]

Patients with ingrown nails often turn to various resources, particularly the Internet, to identify their condition and explore treatment options.[4] In the United States of America (USA), 74% of adults go online to seek health information. Many people use YouTube for medical advice, but concerns about the quality and accuracy of uncertified videos persist.[5]

Submission: 27-Jul-2025
Acceptance: 24-Sep-2025 **Web Publication:** 27-Nov-2025

Access this article online

Quick Response Code:

Website: www.turkjdermatol.com

DOI: 10.4274/tjd.galenos.2025.82713

Adress for correspondence: Huriye Aybüke Koç, MD, Department of Dermatology and Venereology, Giresun University Faculty of Medicine, Giresun, Türkiye
Email: aybukecibelik@gmail.com
ORCID ID: 0000-0001-8665-3501

How to cite this article: Altınöz Güney C, Koç HA, Gür Aksoy G. YouTube videos on ingrown toenails: quality and content. Turk J Dermatol. 2025;19(4):202-208.

Previous research has explored the reliability of advice on conditions like acne, rosacea, eczema, and alopecia areata.[6-9] Similar to ingrown hair removal and pimple popping videos, non-informative ingrown nail treatment videos are common on YouTube. These videos often garner significant views and engagement, with viewers expressing pleasure and satisfaction while watching.[10]

In this study, we aimed to analyze the distribution of content related to ingrown nail in videos, identify the creators of these videos, and evaluate their viewer engagement and quality.

Materials and Methods

Search Strategy

In this study, we searched for YouTube videos using the terms "ingrown nail" and "onychocryptosis" on May 14, 2024. The decision to restrict the YouTube video search to a single day was made to ensure methodological consistency and reproducibility. Because YouTube is a dynamic platform where results are continuously influenced by algorithms, user engagement, and trending topics, conducting all searches on one date minimizes temporal variability and reduces potential selection bias. Moreover, algorithmic personalization (e.g., location, previous viewing history) is a known methodological limitation in studies analyzing health-related YouTube content, as the algorithm can alter search results and recommendations according to user-specific factors. To minimize this influence, all searches were performed in a logged-out browser session on the same device, without prior watch history. The first 100 relevant videos from each search were selected for evaluation, as viewers typically don't go beyond this point. This approach is consistent with previous studies analyzing health-related YouTube content, where similar cut-offs have been applied. After applying exclusion criteria (duplicate; non-English; irrelevant; and advertisement videos), a total of 131 videos were included for analysis. This sample size was considered sufficient for descriptive analysis, as the median sample size in systematic reviews of YouTube health content has been reported to be approximately 94 videos.[11] The search results were saved in a playlist, and two independent researchers (CAG and HAK) analyzed the videos.

Ethical approval was not obtained for the study as access to the videos is legally available to the public.

Data Collection and Video Evaluation

Videos of podological or surgical procedures without narration were categorized as group A, with views, likes, and narrators recorded. Narrators were categorized into podiatrists (doctors of podiatric medicine and surgery who specialize in the care of feet and ankles), physicians, nail technicians (professionals trained in cosmetic nail care and pedicure services), patients, or health information websites. Group B, consisting of videos with informative content, was additionally assessed for content and quality scores (Figure 1).

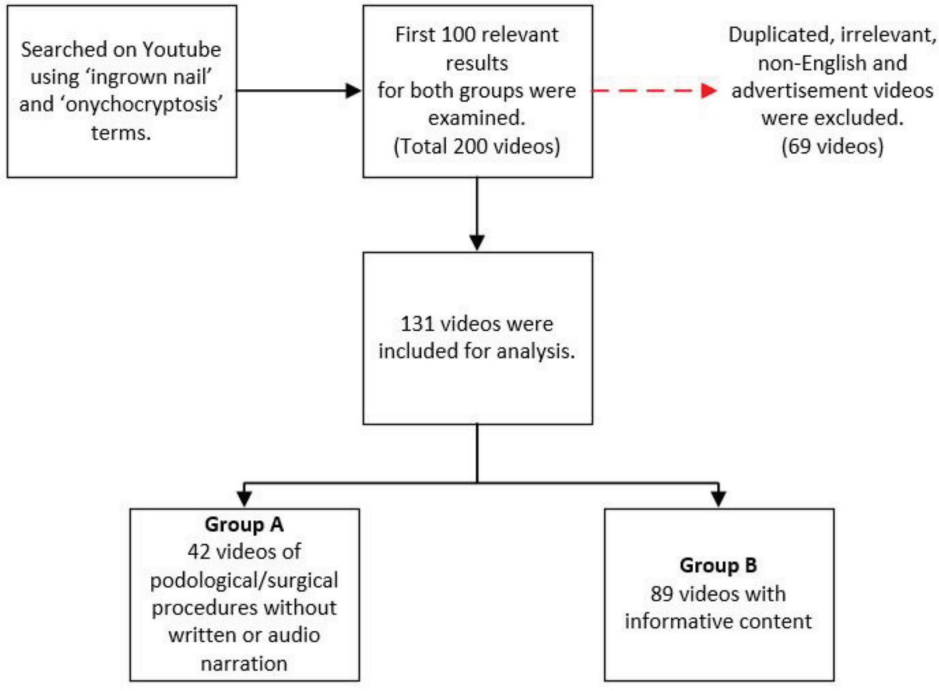

Figure 1. Flowchart depicting the process for identifying and selecting videos on YouTube

To analyze the content of the videos, seven coding categories were developed based on the literature[1,12-14] These categories included signs and symptoms, causes, general measures, soaking recommendations, podological approaches, conservative treatments, and surgical treatments. An additional category assessed whether professional help was recommended by nail technicians, health websites, and patients in the videos. Responses were coded as "yes" or "no" for the inclusion of each category, with specific treatment details also noted.

Viewer engagement was assessed using the engagement ratio, calculated as engagement ratio (%) = (likes + comments) × 100/views. DISCERN, a tool developed by Charnock et al.[15] includes 15 questions, each rated from 0 to 5, to objectively evaluate the quality of health information in videos. However, the original form can be time-consuming and resource-intensive, particularly when applied to large sets of short videos on platforms such as YouTube. For this reason, shortened and modified versions that retain the key quality criteria have been widely used in the literature.[16] A 5-point modified version of DISCERN was used in this study, focusing on clarity, reliability of sources, objectivity, availability of resources, and coverage of controversial topics.[17-19] The modified 5-point DISCERN scale maintains essential domains while allowing for a quicker, more practical, and consistent assessment. Additionally, we assessed the overall quality of the videos using the global quality score (GQS), a 5-point scale (1 = poor quality; 5 = excellent quality). This tool rates the videos' quality, flow, and the usefulness of the information to patients.

Statistical Analysis

Statistical analyses were conducted using MATLAB R2024a (MathWorks Inc., Natick, MA, USA). Descriptive statistical methods such as number, percentage, mean, standard deviation, minimum, and maximum values were used for data evaluation. The level of agreement between the two investigators on DISCERN and GQS values was calculated using intraclass correlation. Comparison between the two groups for ordinal variables and non-normally distributed continuous variables was performed using the Mann-Whitney U test. A P -value of less than 0.05 was considered statistically significant for all analyses.

Results

Out of the 131 videos in our study, 42 were non-informative, featuring procedures like nail trimming, filing, or nail avulsion surgeries, typically watched for their "satisfying" nature (group A). The remaining 89 videos were informative about ingrown nails (group B). Group A had significantly higher views, likes, and engagement ratios ($P < 0.001$). In both groups, podiatrists were the most frequent content creators, followed by nail technicians (Table 1). Among physicians, there were general surgeons, orthopedic surgeons, and general practitioners, but no dermatologists.

Among the 89 informative videos, the types of ingrown nails were as follows: two on retronychia, one on distal embedding, and the rest on lateral ingrowing. Table 2 provides a detailed analysis of video content by narrator.

The intraclass correlation coefficient was 0.78 for DISCERN and 0.85 for GQS, indicating good agreement between the two researchers. The detailed DISCERN and GQS scores for each video narrator type are presented in Table 3. According to the DISCERN, the highest average score was observed among podiatrists. Videos created by podiatrists were found to be of significantly higher quality than videos created by nail technicians ($P = 0.0137$). However, there was no statistically

Table 1. Characteristics of YouTube videos about ingrown nail

	Group A* (n = 42)	Group B** (n = 89)	Total (n = 131)
Video narrator (%)			
Podiatrist	30 (71.43%)	57 (64.04%)	87 (66.41%)
Nail technician	9 (21.43%)	12 (13.48%)	21 (16.03%)
Physician	1 (2.38%)	11 (12.36%)	12 (9.16%)
Health information website	2 (4.76%)	8 (8.99%)	10 (7.63%)
Patient	0	1 (1.12%)	1 (0.76%)
Video metrics (mean)		***P* value[b]**	
Total view counts	1.767.682	677.533	**< 0.001**
Like counts	45.154	6.247	**< 0.001**
Comment counts	523	246.2	0.096
Engagement ratio[a]	2.60	1.40	**< 0.001**

*Group A: Videos of podological or surgical procedures without written or audio narration
**Group B: Informative videos
[a]Engagement ratio = (likes + comments) / total views *100
[b]Mann-Whitney U test

Table 2. Analysis of the content of informative videos (n = 89)

Videos categorized by narrators	Mentions (n) - %
Total (n = 89)	• Sign and symptoms (32)-36% • Causes (31)-34.8% • General measures (17)-19.1% • Soaking (13)- 4.6% • Podological procedures (18)-20.2% • Conservative treatments (15)-16.9% • Surgical treatments (54)-60.7%
Podiatrists (n = 57)	• Sign and symptoms (20)-35% • Causes (18)-31.6% • General measures (11)-19.3% • Soaking (5)-8.8% • Podological procedures (9)-15.8% • Conservative treatments (5)-8.8% Cotton insertion (2) LED light-cured composite brace (2) Taping (1) • Surgical treatments (40)-70.2% Partial nail avulsion with chemical matricectomy (23)* Partial nail avulsion without matricectomy (6) Wedge resection (3) Total nail avulsion without matricectomy (3) Total nail avulsion with chemical matricectomy (1)
Nail technicians (n = 12)	• Sign and symptoms (3)-25% • Causes (2)-16.7% • General measures (1)-8.3% • Soaking (1)-8.3% • Encouragement for seeking professional help (4)-33.3% • Podological procedures (9)-75% • Conservative treatments (5)-41.7% Cotton insertion (2) Dental floss insertion (2) LED light-cured composite brace (1)
Physicians (n = 11)	• Sign and symptoms (4)-36.4% • Causes (5)-45.5% • General measures (2)-18.2% • Soaking (4)-36.4% • Conservative treatments (2)-18.2% Cotton insertion (1) Gutter method (1) • Surgical treatments (7)-63.6% Wedge resection (2) Partial nail avulsion with chemical matricectomy (1) Total nail avulsion with mechanical matricectomy (1)
Health information websites (n = 8)	• Sign and symptoms (5)-62.5% • Causes (6)-75% • General measures (3)-37.5% • Soaking (3)-37.5% • Encouragement for seeking professional help (4)-50% • Conservative treatments (3)-37.5% Conventional nail braces (2) Cotton insertion (1) Taping (1) • Surgical treatments (6)-75% Partial nail avulsion with chemical matricectomy (2)** Partial nail avulsion with matricectomy using electrocautery (1) Wedge resection (1)
Patient (n = 1)	• Encouragement for seeking professional help (1)-100% • Surgical treatments (1)-100%

Signs and symptoms: pain, redness, edema, discharge
Causes: hereditary factors, improper nail cutting, wearing unsuitable footwear, trauma
General Measures:cut toenails straight across, choose shoes with a comfortable toe box
Soaking the Affected Toe: in warm, soapy water or Epsom salt water
Podological procedures: nail plate trimming, filing, and angle correction
Conservative and surgical treatment: methods mentioned or demonstrated in the video
*Specified: 8 phenol, 4 NaOH
**Specified: 1 phenol

Table 3. DISCERN and GQS scores of informative videos by narrator type

Video narrator	DISCERN (Mean ± SD, range)	GQS (Mean ± SD, range)
Podiatrists (n = 57)	3.74±1.078 (0-5)	4.07±1.22 (1-5)
Nail technicians (n = 12)	2.67±1.43 (1-5)	2.92±1.24 (1-5)
Physicians (n = 11)	3.18±1.25 (2-5)	3.27±1.27 (2-5)
Health information websites (n = 8)	3.25±1.58 (0-5)	3.87±1.64 (1-5)
Patient (n = 1)	2 (2)	2 (2)

GQS: Global quality score, SD: Standard deviation

significant difference found between videos created by other narrators. Based on the GQS score, podiatrists had the highest average. Videos produced by podiatrists were significantly superior in quality to those created by nail technicians (P = 0.0035) and physicians (P = 0.042). However, no significant difference was observed in comparisons with other narrators. The single patient experience video was not included in the statistical comparison.

Discussion

Distal-lateral ingrown toenail is the most frequent presentation, and nearly all reviewed YouTube videos focused on this type. While it can occur at any age, it is particularly common among younger individuals.[13,20] Its pathogenesis is linked to nail shape and trimming habits, which predispose individuals to spicule formation and tissue penetration.[12,13] This triggers an inflammatory cascade that may advance from mild erythema and pain to infection, granulation tissue, and hypertrophy of the nail fold, as outlined in the three-stage classification system.[1]

Management of ingrown toenails remains controversial, with ongoing debates regarding both pathogenesis and optimal treatment strategies. The resulting uncertainty can contribute to inconsistent outcomes and dissatisfaction for patients and clinicians alike.[12,13] In parallel, the accessibility of online platforms has led many individuals to seek information and guidance on YouTube, now one of the most widely used sources of health-related content.[21] Our study evaluates these videos to better understand prevailing perspectives and approaches toward ingrown nail management in the digital sphere.

Although YouTube lacks effective screening mechanisms,[22] a substantial portion of ingrown nail content is uploaded by medical professionals. Interestingly, videos depicting nail avulsion or pedicures, often presented without educational value, tend to receive greater viewer engagement. This may reflect the broader popularity of visually stimulating procedures, comparable to the fascination with "pimple popping" content, which has even been linked to specific neural reward pathways.[10]

Our analysis shows that YouTube serves as a source of patient education on ingrown nails, though the accuracy and depth of information vary depending on the narrator. Health information websites emphasized symptoms and causes, physicians highlighted surgical interventions, and nail technicians focused on conservative approaches. A common misrepresentation observed in videos was the mislabeling of excessive granulation tissue as pyogenic granuloma.[12] Although conservative measures such as soaking, taping, cotton packing, gutter guards, and nail braces can be effective in early stages, they require consistent compliance. However, most videos provided only limited guidance on these techniques.[13] Nail avulsion refers to the surgical removal of part or all of the nail plate. Partial avulsion without matricectomy is discouraged for lateral ingrown toenails due to high recurrence. Total avulsion is also unsuitable as it may result in abnormal regrowth or anterior embedding.[13,23] Nonetheless, several YouTube videos were found to demonstrate these procedures. Wedge excision, which entails removal of the lateral nail plate, nail bed, and matrix, is effective for stages IIb and III when performed by experienced surgeons. However, incomplete resection may lead to recurrence, and in our analysis, this technique appeared in six videos.[1,24] Chemical cautery offers a less invasive alternative with high success rates. Phenol remains the most commonly used agent due to its antiseptic and analgesic properties, while sodium hydroxide provides comparable outcomes with faster healing.[1,12,13,25] Some videos referenced these agents, though many did not specify the cautery method. Electrocautery was rarely mentioned and is limited by the risk of periosteal injury and persistent pain.[13]

Videos by podiatrists had higher quality scores than others, reflecting their active contribution and expertise in nail disorders. Surprisingly, no dermatologist-produced videos appeared among the top 200, a finding consistent with prior literature that highlights the limited presence of dermatologists on YouTube. Instead, patient-generated content dominates, often lacking accuracy and reliability. Although professional videos generally receive fewer views and interactions, they tend to provide greater scientific accuracy and educational value.[26-28] In the context of nail diseases, the scarcity of dermatologist-produced content is a critical limitation, as dermatologists play a central role in the differential diagnosis

of nail disorders, identifying systemic associations, and recognizing malignant conditions. Inaccurate or misleading YouTube videos on nail diseases may contribute to misdiagnosis, unnecessary or harmful treatments, and delays in appropriate care. Enhancing the visibility of dermatologists and professional health organizations on platforms like YouTube could therefore help improve patient education on nail diseases, reduce misinformation, and support earlier recognition and management of serious conditions such as nail malignancies. Short, practical, and visually engaging content, ideally developed through multidisciplinary collaboration, may further increase public awareness and the dissemination of reliable information on nail health.

Study Limitations

This study has several limitations: it only included English videos, and the evaluation was done on a dynamic platform, where views and likes are subject to constant change. There is no consensus on the best method to evaluate healthcare-related videos; and, the assessment was subjective. Although two dermatologists independently performed the evaluation using validated tools, we acknowledge that including a broader range of evaluators might further strengthen reliability, which could be considered in future studies. Additionally, since patients weren't involved, it's unclear how well the audience understood the content. Despite these limitations, this is the first study to assess YouTube videos on ingrown nails.

Conclusion

Our findings indicate a notable variation in the content and quality of these publicly available videos. This study highlights the need for high-quality, up-to-date content on ingrown nails and its treatment, which may improve patient education, enhance doctor-patient communication, introduce innovative treatments, and support continuous professional development among medical practitioners.

Ethics

Ethics Committee Approval: Not applicable.

Informed Consent: Not applicable.

Footnotes

Authorship Contributions

Surgical and Medical Practices: C.A.G., G.G.A., Concept: C.A.G., Design: C.A.G., H.A.K., G.G.A., Data Collection or Processing: C.A.G., Analysis or Interpretation: C.A.G., H.A.K., G.G.A., Literature Search: C.A.G., H.A.K., Writing: C.A.G.

Conflict of Interest: The authors declared that they have no conflict of interest.

Financial Disclosure: The authors declared that this study received no financial support.

References

1. Alkhalifah A, Dehavay F, Richert B. Management of ingrowing nail. Hand Surg Rehabil. 2024;43S:101628.
2. Cho SY, Kim YC, Choi JW. Epidemiology and bone-related comorbidities of ingrown nail: a nationwide population-based study. J Dermatol. 2018;45(12):1418-1424.
3. Chabchoub I, Litaiem N. Ingrown toenails. In: StatPearls [Internet]. Treasure Island, FL: StatPearls Publishing; 2025 Jan–. Updated September 18, 2022. Accessed September 17, 2025. https://www.ncbi.nlm.nih.gov/books/NBK546697/
4. Amante DJ, Hogan TP, Pagoto SL, English TM, Lapane KL. Access to care and use of the Internet to search for health information: results from the US National Health Interview Survey. J Med Internet Res. 2015;17(4):e106.
5. LaValley SA, Kiviniemi MT, Gage-Bouchard EA. Where people look for online health information. Health Info Libr J. 2017;34(2):146-155.
6. Gorrepati PL, Smith GP. DISCERN scores of YouTube information on eczema treatments. J Am Acad Dermatol. 2021;85(5):1354-1355.
7. Gupta AK, Polla Ravi S, Wang T. Alopecia areata and pattern hair loss (androgenetic alopecia) on social media: current public interest trends and cross-sectional analysis of YouTube and TikTok contents. J Cosmet Dermatol. 2023;22(2):586-592.
8. Chen AY, Azizi B, Borba AJ, Armstrong AW. Rosacea videos on social media: a comparison of accuracy, quality, and viewer engagement. Dermatol Online J. 2021;27(2):13030/qt55c0g9wz.
9. Ünlü Açıkel S, Özdemir AK, Emre S. The reliability and quality of YouTube videos about isotretinoin treatment and suicide. Clin Exp Dermatol. 2024;49(11):1356-1361.
10. Wabnegger A, Höfler C, Zussner T, Freudenthaler HH, Schienle A. Enjoyment of watching pimple popping videos: An fMRI investigation. Behav Brain Res. 2021;402:113129.
11. Osman W, Mohamed F, Elhassan M, Shoufan A. Is YouTube a reliable source of health-related information? A systematic review. BMC Med Educ. 2022;22(1):382.
12. Thakur V, Vinay K, Haneke E. Onychocryptosis - decrypting the controversies. Int J Dermatol. 2020;59(6):656-669.
13. Haneke E. Controversies in the treatment of ingrown nails. Dermatol Res Pract. 2012;2012:783924.
14. Hassan RE, Khan L, Shah SH, Naeem H, Noor N, Iqbal M, Dawood Khan F, Rehman Z, Ahmad W, Tanveer S, Khan AU, Shah SH. Surgical strategies for ingrown toenails: a comprehensive review of techniques, outcomes, and advancements. Cureus. 2024;16(1):e52501.
15. Charnock D, Shepperd S, Needham G, Gann R. DISCERN: an instrument for judging the quality of written consumer health information on treatment choices. J Epidemiol Community Health. 1999;53(2):105-111.
16. Khazaal Y, Chatton A, Cochand S, Coquard O, Fernandez S, Khan R, Billieux J, Zullino D. Brief DISCERN, six questions for the evaluation of evidence-based content of health-related websites. Patient Educ Couns. 2009;77(1):33-37.
17. Batur AF, Altintas E, Gül M. Evaluation of YouTube videos on primary bladder pain syndrome. Int Urogynecol J. 2022;33(5):1251-1258.
18. Singh AG, Singh S, Singh PP. YouTube for information on rheumatoid arthritis--a wakeup call? J Rheumatol. 2012;39(5):899-903.
19. Gul M, Diri MA. YouTube as a source of information about premature ejaculation treatment. J Sex Med. 2019;16(11):1734-1740.
20. Murray WR. Onychocryptosis: principles of non-operative and operative care. Clin Orthop Relat Res. 1979;(142):96-102.

21. Ertemel AV, Ammoura A. Is YouTube a search engine or a social network? Analyzing evaluative inconsistencies. Bus Econ Res J. 2021;12(4):871-881.
22. Altun A, Askin A, Sengul I, Aghazada N, Aydin Y. Evaluation of YouTube videos as sources of information about complex regional pain syndrome. Korean J Pain. 2022;35(3):319-326.
23. Tosti A, Piraccini BM. Treatment of common nail disorders. Dermatol Clin. 2000;18(2):339-348.
24. Bos AM, van Tilburg MW, van Sorge AA, Klinkenbijl JH. Randomized clinical trial of surgical technique and local antibiotics for ingrowing toenail. Br J Surg. 2007;94(3):292-296.
25. Bostanci S, Kocyigit P, Gürgey E. Comparison of phenol and sodium hydroxide chemical matricectomies for the treatment of ingrowing toenails. Dermatol Surg. 2007;33(6):680-685.
26. Mueller SM, Hongler VNS, Jungo P, Cajacob L, Schwegler S, Steveling EH, Manjaly Thomas ZR, Fuchs O, Navarini A, Scherer K, Brandt O. Fiction, falsehoods, and few facts: cross-sectional study on the content-related quality of atopic eczema-related videos on YouTube. J Med Internet Res. 2020;22(4):e15599.
27. Mueller SM, Jungo P, Cajacob L, Schwegler S, Itin P, Brandt O. The absence of evidence is evidence of non-sense: cross-sectional study on the quality of psoriasis-related videos on YouTube and their reception by health seekers. J Med Internet Res. 2019;21(1):e11935.
28. Lukac D, Pagani K, Yi JZ, McGee JS. Consulting 'Dr YouTube': a content analysis of YouTube® videos related to hidradenitis suppurativa treatments. Clin Exp Dermatol. 2022;47(3):606-608.