

Homeopathic treatments of vulvovaginal candidiasis on YouTube

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Abstract

PURPOSE: Social media platforms and internet searches have become one of the premier means of disseminating health information to users in search of immediate symptomatic relief. Since the introduction of the internet, patients have more opportunities to search for health information than ever before. In fact, homeopathic drug sales were estimated at \$201 million in 1995 and have steadily risen to an estimated 300-450 million by 2003. Because of the unregulated nature of social media, non-health professionals often publish health-related information that can quickly become widely spread. One area frequently searched are symptoms and treatment of uncomplicated vulvovaginal candidiasis. It is estimated that 29-49% of women reported experiencing at least one episode over the course of their lifetime. Due to the unregulated and poorly studied nature of the recommended treatments shared, we sought to describe the recommended treatments for vulvovaginal candidiasis in Youtube videos posted by non-healthcare professionals with more than 5,000 views.

METHODS: Utilizing search terms ["Treat" or "Home Remedy"] + ["Yeast" or "Vaginal Yeast" or "Vaginal Itching"] + ["Infection"], we reviewed Youtube videos with a minimum of 5,000 views posted by non-healthcare professionals. Data was collected on the number of views, likes and dislikes, recommended treatment including ingredients and route of administration, adverse effects, recommendation for consultation with a professional healthcare provider, commissionable links and links to direct product sales, and year of video posting. Qualitative data was collected on measures including evidence of clinical outcomes, claimed benefits, and satisfaction with prior treatment recommendations made by professional healthcare providers.

RESULTS: 35 videos (2008-2021) with median and average viewership of 60,905 and 4.8M were selected. Video likes ranged from 42 to 35,000 (\bar{x} =1300, \bar{x} = 5498.5) and dislikes ranged from 11 to 15,000 (\bar{x} =34, \bar{x} = 252.51). Like-to-dislike ratio (LDR) ranged from 0.792 to 1 (\bar{x} =0.971, \bar{x} = 0.961). 80% (n=28) of videos were posted by non-healthcare professionals within the last 5 years, and 100% (n=35) of videos were posted within the last 15 years. The majority of the videos presented treatment options for vulvovaginal candidiasis, however 31% (n=11) of the videos claimed additional benefits including treatment of bacterial vaginosis, urinary tract infections, and unspecified vaginal itching and odor, and 14% (n=5) claim to balance vaginal pH levels. The most commonly recommended treatments included vaginal boric acid suppositories (40%, n=14), vaginal garlic clove suppositories (31%, n=11), topical coconut oil application (17%, n=6), oral consumption of probiotic yogurt (11%, n=4), and oral probiotic capsules (11%, n=4). Other frequently mentioned treatments included topical aloe vera application, apple cider vinegar (ACV) douching, and topical tea tree oil, oregano oil, pre-soaked green tea bag, and 3- and 7-day miconazole application. The highest viewed videos recommended use of (1) neem paste with water/tea tree oil/coconut oil, (2) ACV/coconut oil, probiotic yogurt, aloe vera, green tea, and (3) vaginal garlic suppositories. The most commonly recommended routes of administration were via vaginal suppository (86%, n=31), topical application to the

vulvovaginal area (74%, n=26), and oral ingestion (40%, n=14). Those videos with the highest LDR recommended boric acid suppositories (1), topical oregano and coconut oil (2), and probiotic capsules (3). 60% (n=21) of videos subjectively noted an improvement of clinical symptoms to include vaginal itching, irritation, and discharge. 34% (n=12) of videos expressly stated that all information contained within the video should not be considered as “professional advice” and individuals should consult with a healthcare professional before proceeding with the recommended treatment use. In 8% (n=3) of videos, non-healthcare professionals expressed personal dissatisfaction with treatment recommendations previously made by professional healthcare providers. Adverse effects of any kind were mentioned in 29% (n= 10) of videos, and 2% (n=1) of videos cautioned against recommended treatment (garlic suppository and salt-water rinse) use during pregnancy. Commissionable links or links to direct products were found in 57% (n =20) of videos.

CONCLUSIONS: Searching for and viewing of information regarding “natural” remedies for vulvovaginal candidiasis is common among members of the Youtube community. The vast majority of videos on Youtube are produced by non-health professionals marketing a product. Many of the recommended treatments are supported in video comment sections by the general population, however, they remain untested and unregulated by any regulatory body. The absence of regulation leaves the potential for unreported adverse effects. In order to properly inform and advise patients about alternative remedies, women’s health practitioners would benefit from knowledge regarding the wide variety of promoted treatments online.