



Neurosurgical videos on YouTube

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Introduction

Videos can turn into valuable teaching tools and YouTube has proven to be the best platform to disseminate this information[12]. Since its creation in February 2005, there has been a rapid expansion of YouTube videos on several subjects, nowadays there are over 800 million unique users every month. Neurosurgery is not out of this wave, and several channels related to it can be found at YouTube.

Neurosurgical movies on YouTube are a fast growing trend. There are multiple YouTube channels about neurosurgery and it is not limited to surgeries but it is also common to find lectures, courses and conferences being shared.

The digital era has been characterized by widespread access to information, creating a new era in medicine, with a profound change in the way we learn and teach.[3][8][9][10] A recent study showed effective faster learning curve for spinal surgery for residents on a video-based training program, and the learn plateau was achieved at half of the time compared to regular training without the systematic use of videos. [7]

Methods

We reviewed the main articles evaluating educational videos related to medicine, including some scarce material evaluating specifically neurosurgical videos.

We also point pros and cons of this new technology and foster a deeper discussion.

Results

Health professionals' awareness of the usefulness of these new tools is increasing, and so their participation in the material released is getting higher every day.[1]

A very low percentage of videos can be considered as good quality ones. Usually institutional videos are of better quality, however, there is too little material of that kind, specially regarding neurosurgery.

Rössler found that only 14% of videos regarding lumbar puncture and spinal anesthesia are good[11], which although important procedures, they are not among the most complex type, so we can infer that the rate of good videos can be even lower if we evaluate procedures that require more ability and training. That hypothesis does require more investigation.

Pros:

- Better learning experience and educational results
- Free of charge for those who publish and watch
- Very easy to use platform
- Widely know, fast propagation
- Some high quality videos from world recognized professionals and institutions

Cons:

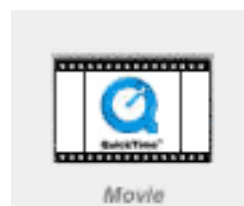
- Not peer-reviewed
- Low quality videos are still majority
- Lack of institutional videos
- Not all subdivisions covered

Conclusions

We found that the viewer should be careful and choose wisely which channels and videos to watch. There is a lack of institutional videos, which comprise a higher degree of video quality in terms of reliability. Besides that, there is a huge opportunity to increase the availability of videos, in order to lower the cost of education and training, increase the efficacy, which is specially important in developing countries.

Nowadays it is a lot easier to record surgeries and lectures due to technology advances in acquiring images and videos. Microscopes and endoscopes can record many kinds of surgery as skull base, intraventricular or even minimally invasive spine surgeries. That way, we can all participate for content enrichment and dissemination.

Finally, being the quality of the videos an important barrier, it is a barrier that can surely be surpassed, there are already YouTube channels that are emerging as sources of reliable videos.



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