

Telemedicine for Preoperative Evaluation During Covid-19 Pandemic: Pilot Study Experiences

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EDITORIAL

Pre-anaesthesia evaluation is performed before elective surgery to evaluate surgical preparations and to arrange specific plans that may affect perioperative care. Evaluation includes mutual interview, examination of laboratory and medical records and physical examination. Adequate evaluation is important to prevent perioperative complications and cancellations. Telemedicine is a technology that provides remote diagnosis and treatment to patients, which can be used for long-distance clinical care, administrative tasks, and training. The World Health Organization defines telemedicine as the provision of health services using communication technologies in environments where distance is an important factor [1]. This technique has a growing interest in all branches, especially in recent years. Evaluations can be provided through services such as secure telephone, video calls, text messages (SMS) and e-mail. According to the communication method to be selected, video calls are called as synchronized or unsynchronized. Anaesthesiologists often used the telemedicine method in pre-anaesthetic evaluation in early times. With the rapid development and maturation of the technology, this method has started to be used successfully not only in preoperative but also in intraoperative and postoperative processes.

In this article, we conducted a retrospective evaluation with regard to the use of telemedicine method in preoperative anaesthesia evaluation of patients who would undergo otolaryngology surgery at Ankara Bilkent City Hospital, which is the largest hospital in Europe and 3rd largest hospital in the world. The motivation of our study is based on the observation that patients with moderate-to-poor general condition and difficult intubation characteristics who may need intensive care after surgery can be easily evaluated by senior anaesthesiologists without causing labour and time loss.

As of March 2020, when the pandemic began, we had 22 patients whom we have evaluated by telemedicine method

in a 6-month period. We used short videos where questions including the patient's functional and metabolic conditions as well as walking and speaking status were answered, accompanied by a preoperative anaesthesia assessment form previously filled out by a junior anaesthesiologist. We also began to add indirect laryngoscopy images to patient images in cases where a difficult airway was expected. In this way, we realized that we better manage our preparations and recovery and intensive care needs, especially in difficult airways. This success has further increased our interest in the subject.

As Bridges et al noted, anaesthesiologists have more than a decade of experience in telemedicine for preoperative consultation [2]. The capital expenditure needed for the application in the past years has decreased with the rapid development of smartphones. Data from studies show high patient satisfaction rates and low case cancellation rates [3]. Telemedicine can facilitate remote patient monitoring and optimization before surgery.

The first publication on patient satisfaction is the paper containing a preoperative assessment of 10 patients in 2004 [4].

From a financial point of view, telemedicine is also useful in terms of cost saving. Zetterman et al. reported that the use of telemedicine saved them time and money, and 85% of the assessment was also equivalent to a face-to-face interview [5]. In addition, telemedicine is useful in preventing financial losses caused by delaying the case.

There are extensive reports in the literature on the use of telemedicine to monitor patients after postoperative clinical evaluation and hospital discharge.

Although patient and practitioner satisfaction is high, standardization of data collection methods, protection of data pools and optimization of data storage are major obstacles that stand before the anaesthesiologist.

In this pilot assessment of 22 patients in which telemedicine was used in the Anaesthesia Department of Ankara City Hospital, high levels of satisfaction were found among anaesthesia practitioners. Although the fact that an interview with a patient is conducted first by Junior Assistant doctors does not constitute a difference in evaluating patient satisfaction, we believe that it makes

sense as it reduces the loss of time and labour for doctors. In the next period, we aim to continue to develop this method in a planned way so that the telemedicine method can be used for evaluation and training purposes, especially in patients with poor general conditions and in need of intensive care in other surgical branches as well. In this way, anaesthesiologists will be able to improve the delivery of services to their patients using telemedicine and determine their future strategies.

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