

A communication method for correcting myopia with SMILE in a patient with hearing impairment

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Myopia is a common clinical ametropia, and its incidence rate is increasing, which brings some inconvenience to life. For hearing-impaired individuals, there is a closer correlation between vision and quality of life. The difficulty of eye laser surgery for hearing-impaired individuals lies in how to achieve satisfactory surgical outcomes through effective communication and cooperation between doctors and patients. Our refractive department admitted a patient with hearing impairment who requested to have their glasses removed in August 2022. Through sufficient communication and preparation, the surgery was successfully completed.

Case presentation

1. General Information

The patient, an 18-year-old female, requested laser surgery due to myopia and came to our hospital for treatment on August 19, 2022.

2. Examination Information

Visual acuity: 0.2 in the right naked eye, corrected to 4.00DS=1.0; Left naked eye 0.15, corrected to -4.75DS-0.25DC \times 165°=1.0.

3. Diagnosis

1. Refractive error in both eyes
2. Hearing impairment

4. Treatment

Preoperative communication was conducted for the first time with the patient, and it was learned that the patient mainly relied on cochlear implants and lip language for communication. Through lip language retelling, writing, drawing, and other explanations, the patient was helped to successfully complete preoperative related examinations and obtain accurate data. Clinical doctors evaluate patient examination data and communicate with patients and their families before deciding to implement SMILE surgery. Further explain the surgical details to the patient, inform them of the surgical precautions, and provide answers through various forms such as writing, drawing, and body language when the patient has doubts about the surgical process. In addition, compared with other general surgical procedures, myopia surgery only lasts for a few minutes, but there are several tens of seconds during which the patient needs to maintain correct gaze movements. These tens of seconds are the key to the surgical process, requiring the doctor to be highly focused and relying more on the patient's good coordination. Therefore, the surgeon and the patient set an exclusive secret code - "Knock once, look left; Knock twice, look right; Knock three times, cannot move", Make the patient practice repeatedly to form inertia.

Preoperative rehearsal: Take patients to visit the operating room half an hour before surgery to understand the operating room environment and layout. Let the patient lie on the operating table and remind them to maintain fixed vision after seeing

the green light through lip language, and not to look for the green light during the operation. During the simulation of a real surgery process, it was found that due to the machine head support, the patient needed to remove the artificial cochlea, which further worsened their hearing level. At this time, the exclusive secret code agreed upon with the patient before the surgery played a role. After the simulated surgery, lip language retelling combined with body language will explain the concept of the green light during the surgery to the patient, and then ask the patient how the green light will change within the 20 seconds that they need to cooperate with? What should I do when the green light disappears? By asking questions, ensure that the patient fully understands. The rehearsal is over, and the patient is acknowledged and praised. During the patient's waiting period for surgery, watch the surgical video again to further familiarize themselves with the process. At the same time, use your fingers to simulate a green light and train the patient's fixation. Allowing the patient's father to accompany them into the operating room during surgery further alleviates the patient's psychological anxiety.

After completing relevant surgical examinations and ruling out surgical contraindications, small incision lens extraction (SMILE) was performed under local anesthesia on August 23, 2022. The surgical process went smoothly, and the postoperative re examination showed a naked eye vision of 1.0 in both eyes.

Discussion

To perform full femtosecond surgery for deaf mute patients, on the one hand, doctors need to have rich technical experience, and on the other hand, they need to be patient before surgery and adopt various communication methods to achieve effective communication. Before surgery, patients should have a full understanding of the surgical process, methods, and precautions. When communicating, their attitude should be gentle and patient. They should face the patient face-to-face, so that the patient can clearly see their mouth shape. At the same time, the speed of communication should be slowed down, supplemented by written writing, drawing, and body language, so that the patient can fully understand the communication content, establish trust in the doctor, and have confidence in the smooth completion of the surgery. A positive attitude of the patient is crucial in surgical cooperation. Repeated practice of agreeing on a secret code before surgery, simulating the surgical process, familiarizing oneself with the operating room environment in advance, and allowing family members to accompany can effectively alleviate the patient's tense and anxious emotions, and obtain active cooperation from the patient during the surgery.

References

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