

## **8. SUMMARY**

Untreated cataract – the most common reason for an operation in the world – leads to continual decrease in vision, eventually may be the cause of blindness. This condition always requires surgical intervention that involves phacoemulsification with intraocular lens implantation. The procedure takes short amount of time and is performed using topical anaesthesia. Phacoemulsification can be characterised as highly efficient and safe. Besides that, it is still not free from burdens to the patient: causing increased stress levels and anxiety, discomfort or pain, and other symptoms, as surgery is performed on fully conscious and alert patients. Despite, there's lots of research concentrating on patient's quality of life, with different health conditions, the subject of patient's experiences during cataract surgery hasn't been yet fully investigated and explored.

### **Aim**

Assessment of types and intensity of unpleasant experiences pre-, intra-, and postoperatively in the patients undergoing cataract surgery, using especially designed questionnaire.

Strategic aim: formulation of algorithm and modification of perioperative approach to patient qualified to undergo phacoemulsification procedure.

### **Methods**

The prospective questionnaire data were collected in 2017-2018 for 200 adults: women and men, that underwent cataract surgery in Ophthalmology Department of the Białystok University Clinical Hospital, as an elective surgery with patients being qualified based on specific qualifying criteria. Patients group age have varied (mean age:  $\pm 72.5$ ), as well as their general health condition. 62% of participants of this study were undergoing their first eye cataract surgery and 38% of them had a procedure performed on their second eye.

Based on the questionnaire, that had 128 detailed questions, sociodemographic characteristic of patients has been created, and they were divided into two groups (I and II) depending whether they were undergoing first or second eye surgery. Juxtaposition of different patients experiences and sensations, with their sociodemographic characteristics, as an implication, led to identification of factors that caused surgical procedure to be described either as positive or negative experience. The questionnaire facilitated also selection of the most significant and frequent reasons for dissatisfaction

## Results

All of the participants stated that there were many more positive than negative elements (more than 85% of patients). The main parts of procedure that were considered as negative (according to at least 50% of patients) are: intravenous cannulation prior to the surgery, waiting time before being discharged, pain during intraocular lens implantation, removing drape from the face at the end of the procedure, lack of possibility of seeing the surroundings during the surgery, placing lid speculum and a surgical dressing. Less common (less than 50% of respondents), but repeating negative experiences were on: deficit of information, lack of satisfying understanding of explanations of procedure, insufficient sensitivity and empathy from the medical team.

Majority of patients with high level of dissatisfaction were in the oldest group of respondents (>65 years old), both men as well as women (in comparison to the 'young' group: 15:3%). Advanced age was the biggest factor contributing to expression of negative thoughts on experiences related to the procedure. The example of that could be, that 34% of older patients and only 8% of younger group of patients complained about 'being skinned' during removal of the surgical drape from at the end of surgery. Accordingly, inserting an intravenous cannula, caused complaints with 26% of older respondents and 11% younger. Amongst men as a group of patients, there were overall higher level of fear and stress expressed in the questionnaire.

Understanding information and explanations on the procedure by medical team, appeared to be more problematic and difficult in people from the following groups: elderly (relation 24:8%), respondents living in small villages (13:4%), patients with low level of education (7:0%).

## Conclusions

1. Elderly patients aged over 65 years old, regardless of their sex, require from medical team more attention, patience and empathy.
2. Women, regardless of their age, appear to require more sensitivity and gentleness from staff, as they appear to need that more than men.
3. Men, need more than women factual and substantive reassurance as they're more generally afraid of surgical and medical investigations (example: intravenous cannulation) than women. Men also were experiencing relatively higher levels of stress (example: men more often had increase of their blood pressure intraoperatively than women).
4. During providing patients with information on stages of procedure, particular elements of their investigations, and providing advises and orders to the patients, there's need to concentrate on formulating sentences in clear, simple and easy to comprehend way,

when communicating with elderly (that often have as well impaired hearing), living in small villages, and generally less educated patients.

5. Summary: it is important to make sure that overall medical investigation is experienced by patients as positive as possible, and to build patients trust, as this will led to increase of patients satisfaction of the surgery and its results, even in case of occurring complications.
6. Proposed improvements on medical and surgical protocol:

Preoperatively	Intraoperatively	Postoperatively
Paying enough attention to sensitive approach towards the patient and to make sure patient doesn't feel like an 'object'.	At the beginning- reassuring patient on effectiveness of anaesthetic drops, so that patient doesn't think surgery is performed without anaesthesia	Efficient preparation of medical documentation, so that patient can go home as soon as possible (this is one of main patients expectations).
Increased interest and attention when approaching patient that is undergoing first eye surgery	Making sure that patient doesn't have mobility problems, to not cause additional pain to patient and also to provide surgeon with a good access to surgical field.	Checking and telling patient on possible discomfort/pain following the procedure (eye pain as well as possible pain/discomfort of any other parts of the body)
Making sure that patient can hear and understand information and advise	Warning patient that there blood pressure monitor will occasionally inflate the arm cuff. Informing patient on when and where there will be inserted intravenous cannula.	Providing patient with detailed, clear instructions on postoperative care at home.
Providing patient by nurses and surgeons with accurate and detailed explanations of stages of investigations/surgery: drops instillation, aims and reasons of particular examinations, the way surgery is performed, role of intraocular lens and types of lenses.	Warning patient on insertion of eyelid speculum and the reason for that (patients often ask if they can blink or if they eye won't close during the surgery).	Informing patient on date, time and place of follow up appointment (in big hospitals patients often feel stress caused by difficulties with locating follow up clinic rooms).
Replacing multiple anaesthetic and dilating drops administrations before the surgery with a single dose of an especially formulated medication (that consist of both: anaesthetic and dilating the pupil ingredients) in the operating theatre.	Slow increase in microscope light brightness, to make it less unpleasant experience.	
	Providing patients with successive information on progress during the surgery, in a kind manner (examples: 'it's all going very well', 'we're finishing soon', 'please, bear with me')	
	Paying attention to careful and gentle removing of surgical drape at the end of cataract surgery, best if performed with continuous chatting to the patient to distract patients attention from possibly unpleasant experience.	
	Slower and careful sitting up patient after the surgery to prevent dizziness.	
	At the end: providing patient with final information on a surgery: whether everything went straightforward and according to the plan.	
	Playing gentle, quiet and relaxing music in operating theatre during the procedure.	

