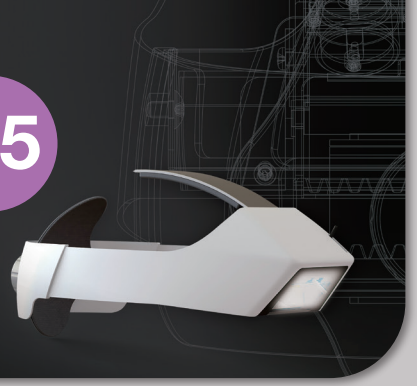
Wearable Surgical Lighting System

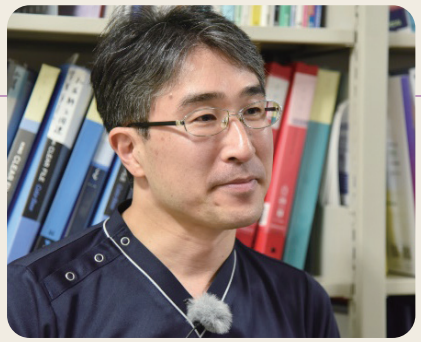
Effectiveness of OPELA Ⅲ™ Vol.5

Challenges and the Future of Surgical Light
Robotic Surgery / Endoscopic Surgery



Dr. Yusuke Kinugasa

Professor, Department of Gastrointestinal Surgery, Tokyo Medical and Dental University



Dr. Yusuke Kinugasa, the leading expert in robotic surgery, has always felt that there is a "space" issue in the lighting environment of the operating room. In this report, we asked him, from his experience in laparoscopic surgeries and robotic surgeries, what challenges lie ahead and what will be required for "future lightings in operating rooms". Also, we asked how he felt using OPELAⅢ during a direct visual procedure on perineum in intersphincteric resection (ISR), reported on the back page (Vol. 6).

Practically speaking, there is simply no space

In endoscopic surgery and robotic surgery, multiple monitors and various equipment tend to occupy space in an operating room (Fig. 1).
However, what really takes up the largest area is the OR light. Poles and arms of OR lights often obstruct robot movement (Fig. 2).
If we can somehow release some space that the OR light is occupying, we can make more room for others. It is unrealistic to dismantle all the OR lights in an operating room, but if we could just replace one sub-arm with OPELAⅢ it would free up quite a large space in the operating room.
Even with laparoscopic surgery or robotic surgery, there are still cases that require undergoing open surgery especially in large intestine, so I feel that OPELAⅢ will be useful not only in terms of brightness and angles of illumination (see Vol. 6 on back), but also in terms of space saving.

Fig. 1 | Operating room with robotic surgery port installed

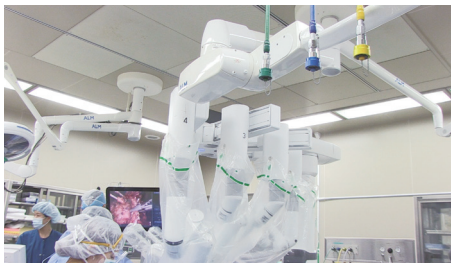


Fig. 2 | Patient cart and ceiling-mounted OR light

Securing space for future expansion

As surgical procedures now have a wide variety of options from open surgery to laparoscopic surgery and robotic surgery, I believe that technological innovations will also transform the operating room environment.
When a new medical equipment is developed and introduced in the future, the lack of space could hinder the implementation of such technology if too many large instruments and equipment occupy the operating room.
In consideration of possible future expansion, it is important to efficiently manage space and maintain an "expandable operating room". Therefore, lighting equipment needs to be as small and mobile as possible.
I think that keeping adequate and lean infrastructure in place will have added benefit of cost savings. OPELAⅢ is definitely one of the instruments that meets my needs in achieving the objective of "securing equipment for efficient operating room" because it is compact, mobile, and bright enough to complement OR lights.