MINIREVIEW SERIES FOR THE 50TH VOLUME

Preface to minireviews New trend in medical and surgical intervention

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Numerous advances in surgery were made during the 20th century, beginning around 1900 with the first gastrectomy (by Theodor Billroth) and the first vascular anastomosis (by Alexis Carrel), and progress will accelerate in the 21st century.

At Keio University, we must remember our founder, Yukichi Fukuzawa, who issued a document stating that doctors were not the servants of God and that they had to treat patients with "eyes as keen as a hawk and hands as skillful as a pigeon". He also predicted that there would be progress in the field of surgery, and proposed that, with insertion of a small mirror into the body, direct inspection of abdominal organs would be possible.

Recently, research and practice in endoscopic and catheter intervention, donated and artificial organ implantation, robotic surgery, and tissue engineering and regenerative medicine have resulted in significant advances here at the threshold of the 21st century.

This series of four mini-reviews will address current prospects for percutaneous coronary intervention for ischemic heart disease, development of open-door laminoplasty and percutaneous nucleotomy, new concepts for artificial ligaments in orthopedic surgery, and computer-enhanced robotic systems for abdominal surgery.