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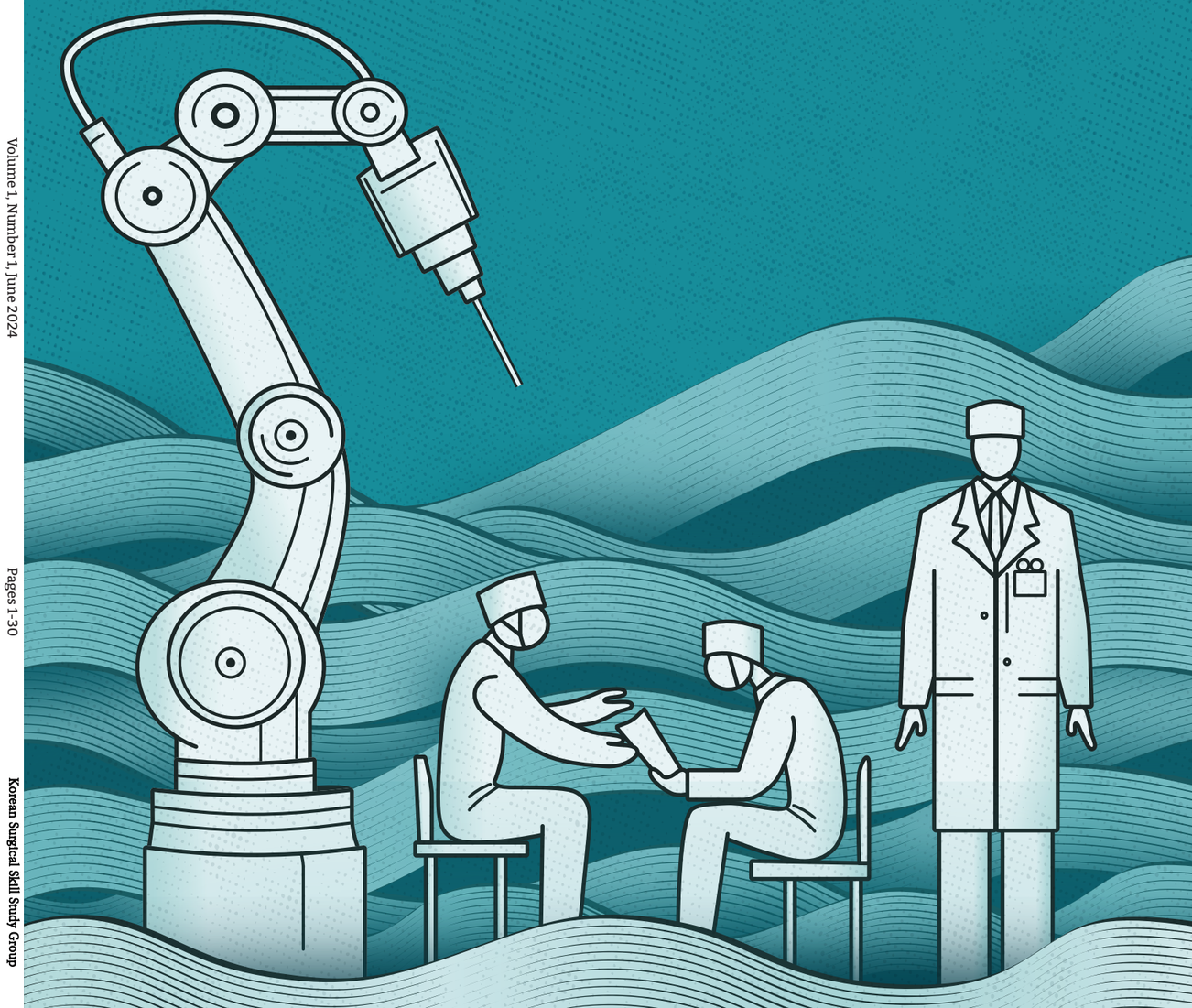

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Aims and scope

Journal of Surgical Innovation and Education (JSIE) is an official and peer-reviewed journal of the Korean Surgical Skill Study Group. As an open-access scientific journal, JSIE is committed to promoting the transfer of cutting-edge and novel surgical techniques, as well as advancing surgical education. The journal is designed to serve as an indispensable resource for surgeons, trainees, and healthcare professionals seeking to refine their surgical practice and embrace innovation in all areas of surgery.

JSIE aims to:
• Provide the development of innovative surgical procedure and technology
• Ensure a more effective transfer of surgery-related detail and knowledge
• Provide an immersive learning experience through high-definition surgical video demonstrations.
• Bridge the gap between traditional surgical education and the evolving demands of modern surgical practices.

Our scope encompasses:
• Newly emerging surgical technologies and techniques
• Tutorials on essential surgical skills, catering to a range of expertise from novice to expert
• Practice and research in minimally invasive or open surgery
• Surgical endoscopy
• Other techniques in the fields of general/thoracic/traumatic/pediatric/neuro/orthopedic surgery, obstetrics, gynecology, and urology.

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"Journal of Surgical Innovation and Education": A Gateway to the Future of Surgery

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On behalf of the Korean Surgical Skill Study Group (KSSSG), it is a great pleasure that I announce the inauguration of our new journal, the "Journal of Surgical Innovation and Education (JSIE)."

Founded in 2005 by Professor Han-Kwang Yang and a group of dedicated founding members, KSSSG has been steadfast in its mission to advance research, development, and education in the field of surgical skill.

Over the past two decades, KSSSG has made significant strides, organizing symposiums, hands-on workshops with animals or cadavers, and implementing comprehensive training programs for young surgeons both domestically and internationally supported by the Korean government.

JSIE, as the official journal of KSSSG, is poised to play a pivotal role in facilitating the dissemination of both novel and standard surgical techniques, as well as sharing invaluable experiences in surgical education. We are confident that JSIE will serve as a platform for the exchange of borderless and up-to-date ideas, experiences, and educational messages in the field of surgery.

In essence, JSIE will serve as a gateway to the future of surgery, inspiring and enlightening all its readers with its rich content and innovative approach.

Disclosure

Hyuk-Joon Lee is the president of the Korean Surgical Skill Study Group, but he was not involved in the peer reviewer selection, evaluation, or decision process of this article. No other potential conflicts of interest relevant to this article were reported.

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Editorial

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Journal of Surgical Innovation and Education: A Platform Pursuing Effective Transfer and Education of Surgical Practice

In-Seob Lee

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I am delighted to introduce the inaugural issue of the Journal of Surgical Innovation and Education (JSIE). JSIE is dedicated to advancing the field of surgery through the dissemination of cutting-edge or standard techniques and the promotion of comprehensive surgical education.

In today's rapidly evolving medical landscape, it is imperative for surgical professionals to stay abreast of the latest advancements and methodologies. JSIE aims to bridge the gap between traditional surgical education and the recent demands of surgical practice. Our mission is to provide a dynamic platform where surgeons, trainees, and professionals can access the latest research, innovative surgical procedures, and educational resources.

What sets JSIE apart from other journals is its unique focus on video-centric content. We feature "Dynamic educational manuscripts" optimized for detailed tutorials with narrative description, "How I do it" or "Innovative technology/procedure" articles emphasizing novel technologies or procedures as well as other types of original articles. This format ensures a more engaging and practical transfer of knowledge, enhancing the educational experience for a wider range of readers.

As we embark on this journey, we invite surgeons, researchers, and educators across all surgical disciplines, including general surgery, to contribute their knowledge and expertise to JSIE. Together, we can foster a culture of innovation and excellence that will shape the future of surgery. Our goal is to support the continuous professional development of our readers, ensuring they remain at the cutting edge of surgical practice.

We thank you for your support and look forward to your contributions. Welcome to the JSIE.

Disclosure

In-Seob Lee is an editor-in-chief of the journal, but he was not involved in the peer reviewer selection, evaluation, or decision process of this article. No other potential conflicts of interest relevant to this article were reported.

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Techniques in Jejunojejunostomy, Gastrojejunostomy, and Esophagojejunostomy in Reduced-Port Gastrectomy

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Minimally invasive gastric cancer surgery aims to reduce morbidity and mortality while maintaining satisfactory oncological outcomes. Laparoscopic gastrectomy is a standard treatment, offering reduced pain, shorter hospital stays, and faster recovery. Reduced-port gastrectomy has gained popularity due to its requirement for limited assistants; however, it poses unique challenges. This paper shares the techniques used in three cases of jejunojejunostomy, gastrojejunostomy, and esophagojejunostomy during reduced-port gastrectomy. Reduced-port techniques were successfully implemented in all three cases. Key steps included proper port placement, the use of tagging sutures, and strategic stapler insertion and adjustment. The reduced-port approach demonstrated feasibility and effectiveness despite its inherent challenges. Reduced-port gastrectomy can be effectively performed with a careful technique and meticulous planning, despite the challenges of transitioning from conventional five-port techniques. Using fewer ports results in less pain, fewer complications, and shorter hospital stays without compromising oncologic outcomes. These techniques can be helpful for trainees and novice surgeons, though careful candidate selection is paramount.

Keywords: Stomach neoplasms; Laparoscopy; Gastrectomy; Surgical anastomosis

Introduction

Minimally invasive gastric cancer surgery, encompassing both laparoscopic and robotic approaches, aims to reduce morbidity and mortality while maintaining or enhancing oncological outcomes [1]. Currently, laparoscopic gastrectomy is regarded as one of the standard treatments for gastric cancer, offering benefits such as reduced pain, shorter hospital stays, and faster recovery [2]. Reduced port gastrectomy has recently gained popularity among young surgeons in several institutions, primarily due to limited availability of assistants, making it a challenging procedure. Among the many types of anastomoses involved in gastric cancer surgery, this paper aims to share my technique for performing jejunojejunostomy, gastrojejunostomy, and esophagojejunostomy during reduced port gastrectomy.

Case Presentation

The three cases introduced in this paper were all performed using reduced port gastrectomy. Fig. 1 shows the port placements of the three cases. To emphasize the techniques used in anastomoses, all descriptions of the gastrectomy procedure itself have been omitted.

Jejunojejunostomy with three ports and no assistant

Three ports were used for this surgery (Fig. 1A): a 5 mm

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port in the right upper quadrant (RUQ) and a 12 mm port between the umbilicus and the 5 mm port as the operator's working ports, and a 12 mm port at the umbilicus for the camera (as depicted in the video). When creating both entry holes, the electrocautery device was used almost perpendicular to the jejunal wall to avoid surrounding tissue damage and to facilitate easier widening of the hole. Inserting the surgical stapler into the entry holes can be challenging for novice surgeons without an assistant. The key point is to ensure the tip of the cartridge side of the stapler is placed in the entry hole and to apply counter traction to the jejunum, similar to pulling on socks. After inserting the anvil side of the stapler, slipped jejunum is pulled for adjustments and the surgical stapler is fired. Avoid pulling the jejunum too hard while inserting both tips of the surgical stapler. Excessive tension can result in a large common entry hole, which can affect the anastomosis size after closure. The first tagging suture is placed on the far end of the common entry hole and tied using a knot pusher. Subsequently, the second tagging suture is placed at the nearer end, which is then pulled from the outside by the scrub nurse instead of being cut. The last tagging suture is placed in the middle to close the common entry hole and to prevent the tissue from sagging or spreading apart. When inserting the stapler, it should always be positioned under the pulled tagging suture so that it acts as an assistant. Ensure that both sides of the jejunal wall are positioned between the stapler, just above or at the same level as the upper border of the stapler, to ensure maximum anastomosis size. Applying pressure on the tissue by closing the stapler once or twice can provide a better view for minimal stapling. The overlapping area of the stapler lines can be vulnerable to ischemia, so a reinforcement suture at this site can provide additional security.

Gastrojejunostomy with two ports and no assistant

Two ports were used for this surgery (Fig. 1B): a 3 cm single incision at the umbilicus using a multichannel port, and one additional 5 mm port positioned 8 cm from the umbilical port towards the RUQ. When making an entry hole in the remnant stomach, it is easier to do so at the distal end of the stapler line along the greater curvature, which also facilitates closing the common entry hole with minimal narrowing of the anastomosis. After puncturing, suctioning the inside of the stomach is crucial to avoid any spillage of gastric contents when performing the anastomosis, which is different from making the entry hole in the small bowel. Inserting the stapler into the entry holes can be even more challenging when it is inserted from the umbilicus direction. Press the tip of the cartridge side of the stapler to the entry hole, and perform a sock-pulling motion. After fully inserting the anvil side, the stomach and the jejunum are then pulled for adjustments before firing the stapler. As described in the jejunojejunostomy section above, tagging sutures and closure of the common entry hole are performed in the same manner, with the bottom suture being pulled from the outside through the multichannel port for traction.

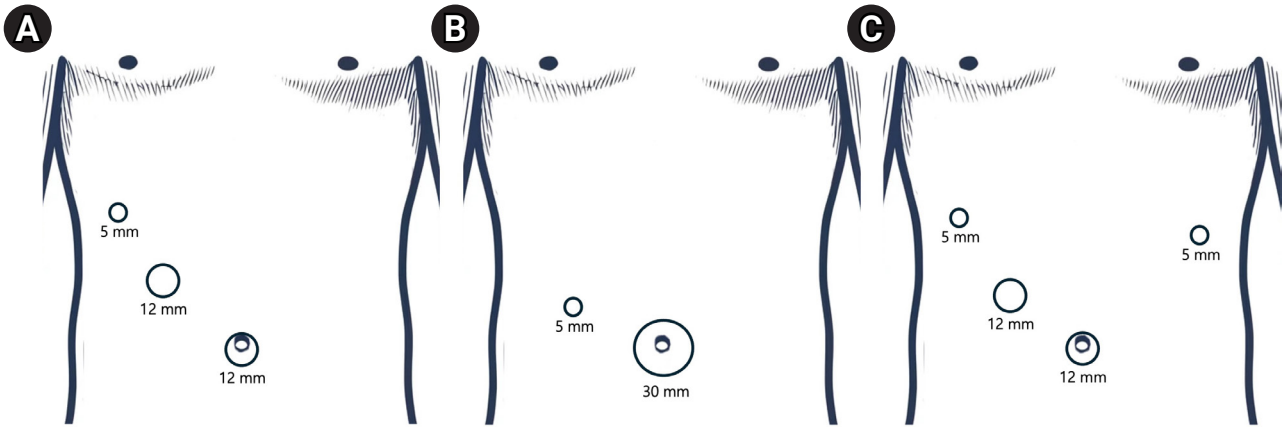

Fig. 1. Laparoscopic port placements for the three cases. (A) Three-port surgery, (B) 2-port surgery, (C) 4-port surgery.

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Esophagojejunostomy with four ports and one assistant arm

Four ports were used for this surgery (Fig. 1C): two 5 mm ports in the RUQ and the left upper quadrant (LUQ), and two 12 mm ports, one at the umbilicus for the camera and one between the umbilicus and the RUQ port. The esophagus is cut at the marked spot with a stapler, leaving one-third of the esophagus. This helps to identify the true lumen and prevents the operator from inserting the stapler into a false lumen. After insertion of the cartridge side of the stapler into the jejunum, it is pulled alongside the remnant esophagus. The anvil side is then inserted into the true lumen of the esophagus and closed. Since the esophagus tends to be pulled into the mediastinum, the operator must pull the esophagus during the anastomosis. The assistant's one arm is required to pull the slipped jejunum for adjustments before firing the stapler. Closure of the common entry hole can be done identically to the procedures described for jejunojejunostomy or gastrojejunostomy.

Discussion

Reduced number of ports makes the entire surgery challenging due to the accustomed training with conventional five-port techniques. Additionally, the centralization of surgeons and surgical residents has led to many hospitals suffering from a lack of assistants. Fortunately, according to several studies, using fewer ports can result in less pain, fewer complications, and shorter hospital stays, with no difference in oncologic outcomes [3-7]. For trainees and novice surgeons, the techniques demonstrated in this paper may be helpful but are just one of many possible techniques, and modifications can be made according to the surgeon's preference. It is essential to carefully select the best candidates for these procedures.

Disclosure

Sa-Hong Min is an associate editor of the journal, but he was not involved in the peer reviewer selection, evaluation, or decision process of this article. No other potential conflicts of interest relevant to this article were reported.

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How I Do It

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Laparoscopic Right Hemicolectomy with an Inferior Approach: How I Do It

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Since its introduction in the early 1990s, laparoscopic colorectal surgery has been extensively validated through randomized controlled trials, establishing its safety and efficacy from oncological and technical standpoints. Laparoscopic right hemicolectomy (LRHC) procedures exhibit variability in dissection extent and initiation sites. Complete mesocolic excision is essential in LRHC, involving precise dissection along embryologic planes and varying in lymph node dissection extent (D2 or D3). Other variations in LRHC include the use of the medial approach (or superior mesenteric vein [SMV]-first approach), where dissection starts along the SMV, the lateral approach (or inferior approach), starting with meso-ileal and retroperitoneal dissection, and the superior approach, initiated by separation of the omentum and transverse colon. This paper presents a case of LRHC for ascending colon cancer using an inferior approach. The procedure included trocar placement, followed by inferior, superior, and medial dissection phases, concluding with specimen extraction and extracorporeal anastomosis. With a standardized procedure, mastery of diverse approaches (inferior, medial, and superior) remains crucial, as the most appropriate method varies among cases.

Keywords: Colectomy; Laparoscopy; Colon, ascending; Colonic neoplasms; Colorectal surgery

Introduction

Since its inception in the early 1990s, laparoscopic colorectal surgery has gained widespread acceptance due to its proven oncological and technical safety [1-3]. Favorable outcomes have led to a significant increase in the use of laparoscopic approaches for colorectal cancer (CRC), with rates rising from 50% in 2008 to nearly 80% in 2018 [4,5]. In performing laparoscopic right hemicolectomies (LRHCs), complete mesocolic excision (CME) is considered vital. CME requires fine dissection following the embryologic tissue planes which results in excision of the entire tumor-associated mesocolon [4]. CME procedures vary in the extent of lymph node dissection, classified as D1, D2, or D3. D2 dissection does not require the exposure of superior mesenteric vein (SMV), whereas D3 lymph node dissection necessitates the full dissection of lymph nodes along the SMV [5]. Applying D3 dissection or CME for all clinical stages of CRC is an ongoing discussion [6,7].

There are other variations on performing LRHC based on the dissection initiation point. The medial approach (or SMV-first approach) starts by dissection of mesocolic along the SMV, while the lateral approach

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(or inferior approach) begins with meso-ileum and retroperitoneum dissection. Additionally, the superior approach starts with the separation of the omentum and transverse colon. This technical paper aims to demonstrate a standardized method of LRHC established in a large-volume nationwide cancer center.

Case Presentation

A 44-year-old female was diagnosed with advanced proximal transverse colon cancer during screening colonoscopy. Computed tomography scans revealed a clinical T3 to T4a with node-positive tumor without signs of distal metastasis (Fig. 1). The institutional review board approval was waived.

Surgical procedures

The patient was positioned supine. Five trocars, including one 12-mm camera port and four 5-mm ports, were initially placed (Fig. 2). The umbilical trocar was later extended for specimen extraction and extracorporeal anastomosis. After trocar insertion, the position was adjusted to a left-tilted Trendelenburg position, with the surgeon and scopist on the left and the assistant on the right.

Dissection began inferiorly with cecum mobilization,

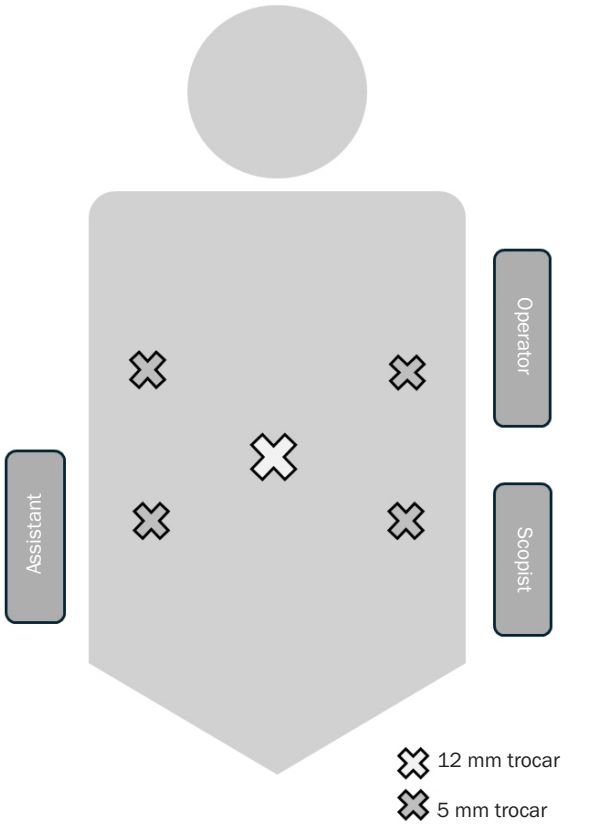

Fig. 2. Trocar placements and surgical team arrangement.

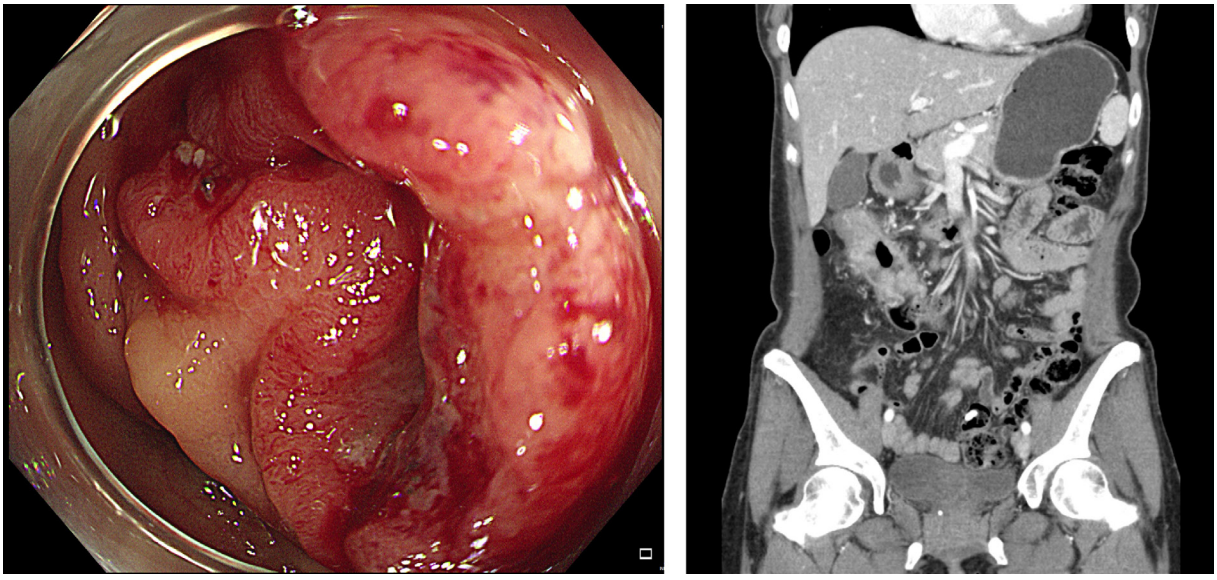

Fig. 1. Initial colonoscopy and abdominal computed tomography images.

progressing superiorly towards the hepatic flexure along Toldt's fascia. It is important to dissect along the proper layer as a deeper level of dissection may result in ureter or gonadal vessels injury. The medial aspect of Toldt's dissection plane will reveal the duodenum with mesocolon being separated from the duodenum meticulously, and further dissection reveals the pancreas head. Full mobilization of the ascending colon up to the inferior aspect of the hepatic flexure and medial dissection up to the duodenum or pancreas head are landmarks where the inferior dissection phase is completed.

Subsequently, the patient is repositioned to a slightly reverse Trendelenburg position for the superior phase. Omental division initiates usually at the mid-transverse colon where division reveals the lesser sac. The omentum was divided and dissection continued towards the hepatic flexure. Careful attention is needed when dissecting near the right gastroepiploic vessels as the layer between the mesocolon, omental bursa, and pancreas may be fused and difficult to distinguish, causing injury in nearby structures such as the pancreas, gastroepiploic or infra-pyloric vessels, gastroduodenal vein or trunk of Henle, or duodenum. Once these structures are identified and safely isolated, further dissection towards the hepatic flexure along the fascial layer is done with relative ease. Further medial dissection may reveal the accessory right colic vein, with anatomic variations. Separation of the duodenum and pancreas head marks completion of the superior dissection phase.

The medial phase starts with identification of the ileocolic pedicle. While typically a groove forms from the mid-mesocolon towards the cecum, a useful landmark is to find the thin layer of mesocolon ("the anatomic sail") which covers the duodenum area. The ileocolic pedicle lies inferiorly to this structure with its vessels resembling the mast of the sail. The dissection starts by exposing the left border of the SMV inferiorly to the ileocolic vessels continuing the dissection superiorly to reveal the ileocolic root. The vessels are ligated and cut, progressing superiorly to expose the SMV. Further exposure reveals the right colic vessels, also ligated. Dissection between the transverse colon and inferior border of the pancreas exposes the lesser sac with the remaining pedicle containing the middle colic vessels. This concludes the medial dissection, with the specimen externalized via the mini-laparotomy wound for extracorporeal anastomosis. All procedures are succinctly demonstrated in Video 1.

Postoperative courses

The total operative time was 107 minutes. The estimated blood loss was less than 50 mL without any transfusion perioperatively. Postoperative recovery was uneventful, with the patient discharged on the 7th postoperative day. The final pathology report revealed a pT3N0Mx stage, with a maximum tumor size of 5.2 cm and 44 lymph nodes yielded. The patient was followed with routine surveillance without adjuvant chemotherapy.

Discussion

This paper outlines an LRHC with lymphadenectomy along the SMV for ascending colon cancer with extracorporeal anastomosis, the preferred surgical treatment at our institute for ascending and proximal transverse colon cancer. Generally, in our institute, D2 plus principal lymph node dissection is considered for right-sided colon cancer. Although this study demonstrated the inferior approach technique, our surgeons are proficient with the inferior, medial, and superior approaches. It is important that colorectal surgeons be able to proficiently perform LRHC with diverse approaches, as the most appropriate method can vary by patient case. The inferior approach is convenient in that the surgeon has clear vision of duodenum and the mesocolon can be safely lifted without injuring the duodenum. However, in patients with obstructive lesions and dilated small bowel, starting from the inferior approach is difficult due to limited space which hinders the upheaving of meso-ileum. For these patients, medial approach is more suitable as it can be performed with relatively less working space. Conversely, when the tumor is in the proximal ascending colon and partly adhesive with the duodenum, both the medial and inferior approach may be difficult to initiate, prompting the surgeon to start from a superior approach. One should bear in mind, there is no stereotypical surgery and dexterous laparoscopic skills combined with in-depth understanding of anatomical planes allow surgeons to perform tailor-made operations for each patient's unique situation.

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Disclosure

No potential conflict of interest relevant to this article was reported.

Author contributions

Conceptualization: YIK, HL; Data curation: YIK, MHK; Investigation and Formal analysis: YIK, HL; Methodology and Software: HL, MHK; Writing–original draft: YIK, HL; Writing–review & editing: MHK.

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How I Do It: The Very First Laparoscopic Cholecystectomy as a First-Year Resident, with a Step-by-Step Tutorial

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Since its introduction in 1987, laparoscopic cholecystectomy (LC) has been widely performed by surgeons as a standard procedure for benign gallbladder diseases. Education and training by hepatobiliary experts are important in order to safely perform LC without critical complications. The present report discusses the first LC performed by a beginner surgeon who was trained with our institutional step-by-step tutorial. The step-by-step mentor-mentee tutorial had a total of four phases: video training, observation in the operating room, participation as an assistant, and finally performing LC independently. At every step, the mentor's approval was required to move on to the next phase. After completing visual training and observation, the mentee participated in 10 consecutive LCs as an assistant or operator. Finally, LC for a 54-year-old female patient with gallbladder stones was independently performed by the mentee under the mentor's supervision. The patient was discharged on the first postoperative day without complications. We report a case of LC successfully performed by a beginner surgeon with the aid of a newly established step-by-step tutorial. The tutorial is expected to be applied to numerous surgical trainees after further refinement regarding its safety and feasibility.

Keywords: Gallstones; Laparoscopic cholecystectomy; Education; Minimally invasive surgical procedures

Introduction

Benign gallbladder diseases such as gallstones and polyps are highly prevalent. Their incidence is reported to be increasing [1,2]. If operative treatment is indicated, treatment of choice is cholecystectomy. Laparoscopic cholecystectomy (LC) is considered as the standard, which is performed in most cases [3].

LC is feasible and safe when performed by trained surgeons. However, serious complications such as postoperative bleeding or bile duct injury may occur. The rate of complications is known to be associated with surgical inexperience [4]. Therefore, many previous studies have tried to identify a learning curve for LC and to establish a proper training model for surgical residents [4-6]. In this report, we present the first LC case performed by a first-year resident trained by her mentor along with a newly established institutional tutorial.

Case Presentation

An elective cholecystectomy was planned for a 54-year-

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old female patient with symptomatic gallbladder stone. The patient had underlying chronic liver disease associated with hepatitis B virus. She had no previous history of abdominal surgery. Her body mass index was 26.7 kg/m^2. Preoperative computed tomography scans showed a 1.5 cm gallstone with mild gallbladder wall thickening (Fig. 1). This study was approved by the Institutional Review Board (IRB) of the Samsung Medical Center (IRB No: 2024-05-094).

Fig. 1. Preoperative computed tomography scan of the patient with chronic calculous cholecystitis.

Results

Our institutional tutorial consists of four phases (Table 1): video training, observation, participation (as a first assistant or operator) and operation.

During visual training with more than 50 video clips, the mentee wrote a case review note of every video she watched and presented it to the mentor as a result of the first phase. Followed by observation, the trainee completed the checklist by participating in 10 consecutive LCs as the first assistant or operator. Under close monitoring by the mentor, LC was independently performed by the mentee, with an operation time of 55 minutes.

The patient was discharged on postoperative day 1 without complications. Permanent biopsy showed chronic cholecystitis with a gallbladder stone (Fig. 2). At the first postoperative outpatient clinic, the patient was doing well with clear wound and normal laboratory findings.

Discussion

Ability to perform LC independently is a prerequisite for obtaining surgery board certification in Korea. However, many surgical residents have a low opportunity to perform LC by themselves, particularly in tertiary centers. This is possibly due to their workload outside operating rooms, or fellow-oriented training of pancreato-biliary

Table 1. Institutional step-by-step tutorial for residents

Phase	Detail	Duration/Requirement
1st: video training	- Understanding biliary anatomy - Learning the details of LC	At least 2 weeks/A case review note
2nd: observation	- Observing a mentor performing LC in the operating room - Questions and answers in real time	At least 1 week/5 cases recommended
3rd: participation	- A stepwise approach (checklist: proceeding to the next step only after obtaining confirmation from the supervisor) a. Incision and trocar insertion b. Recognition of anatomy: bile duct and Calot's triangle c. Dissection of Calot's triangle and achieving the "critical view of safety" d. Ligation of cystic duct and cystic artery e. Dissection of gallbladder from liver bed (troubleshooting tips: a "top-down" technique) f. Bleeding control and specimen removal g. Closing trocar sites	At least 1 week/At least 2 tries fully completed by a mentee
4th: operation	- Performing LC under the supervision of a mentor	-

LC, laparoscopic cholecystectomy.

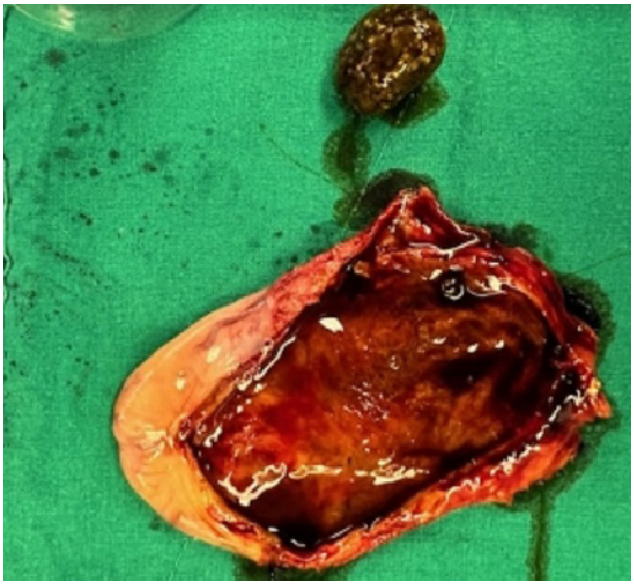

Fig. 2. Specimen retrieved from the operation.

surgery.

Several reports have suggested that a structured program is essential to enhancing residents' ability to safely perform LC [4,7,8]. Therefore, we set a new manual for residents with specific duration of training and detailed instructions. We also let the trainee proceed to next process only with confirmation of the supervisor, so that the trainee could get fully acquainted with every procedure of LC. Finally, the first operation was independently and successfully performed by the trainee.

With this first use of a step-by-step LC tutorial, we identified the importance and potential effectiveness of a structured manual for surgical residents. After a further improvement of applicability and feasibility, this tutorial could be used by many other beginner surgeons to develop their basic technical skills for LC.

Disclosure

No potential conflict of interest relevant to this article was reported.

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Author contributions

Conceptualization: SP, SJY; Data curation: SP, HC, HSK, SJY; Formal analysis: SP, HC, HSK, HK, SHS, IWH, JSH, SJY; Investigation: SP, HC, HSK, HK, SHS, IWH, JSH, SJY; Methodology: SP, SJY; Funding acquisition: SJY, IWH; Writing–original draft: SP, HC, HSK, HK, SHS, IWH, JSH, SJY; Writing–review & editing: SP, HC, HSK, HK, SHS, IWH, JSH, SJY.

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Optimized Surgical Techniques in Laparoscopic Living-Donor Right Hemihepatectomy Using Indocyanine Green Fluorescence Images

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This paper outlines the surgical technique for laparoscopic living-donor right hemihepatectomy (LLDRH), a minimally invasive procedure that increases graft safety and reduces donor morbidity. The technique includes careful patient selection, precise port placement, meticulous liver mobilization, and careful parenchymal dissection, followed by secure graft extraction and effective hemostasis. LLDRH offers several advantages over open living-donor surgery, including lower costs, less postoperative pain, shorter hospital stays, and better cosmetic results. The use of advanced three-dimensional laparoscopic systems and indocyanine green fluorescence imaging has further increased the safety and effectiveness of this procedure. As laparoscopic technology continues to evolve, LLDRH is likely to become more widely adopted, offering a valuable option for liver transplantation programs. A video clip shows a 32-year-old woman with a body mass index of 25.7 kg/m^2 who donated her right liver. Her remnant liver volume was 34%, and the estimated graft-to-recipient weight ratio was 1.2. The operation time was 240 minutes, with an estimated blood loss of 150 mL. She was discharged on the fifth postoperative day without any complications.

Keywords: Laparoscopy; Liver transplantation; Living donors; Hepatectomy; Minimally invasive surgical procedures; Indocyanine green

Introduction

The growing expertise in laparoscopic techniques has made laparoscopic living-donor right hemihepatectomy (LLDRH) a viable option for liver transplantation programs [1-3]. Advancements in laparoscopic equipment, such as the use of three-dimensional laparoscopic systems and laparoscopic energy devices—including ultrasound devices, cavitron ultrasonic surgical aspirator (CUSA), and bipolar devices—have improved the precision and safety of LLDRH. Consequently, LLDRH has emerged as a significant advancement in minimally invasive liver surgery, ensuring both graft safety and viability. Living donors benefit from reduced postoperative pain, shorter hospital stays, and better cosmetic outcomes compared to those undergoing open donor hepatectomy. We outline the basic surgical techniques used in LLDRH [4]. All surgical procedures performed by the operator and first assistant are described in a supplementary document (Supplementary Material 1).

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Case Presentation

A 32-year-old woman donated her right liver to a family member. Her weight was 65.3 kg and her height was 159.3 cm, resulting in a body mass index of 25.7 kg/m^2. Based on computed tomography (CT) volumetry, the future remnant liver volume was estimated as 34%, and the estimated graft-to-recipient-weight ratio was 1.2. CT showed that she had conventional anatomy of the hepatic artery (HA) and the hepatic vein (HV), as well as trifurcation-type portal vein (PV) anatomy. Magnetic resonance imaging revealed a fat fraction of 3.5% and typical bile duct (BD) anatomy. The operation time was 240 minutes, with an estimated blood loss of 150 mL. She was discharged on the fifth postoperative day without any complications. The Institutional Review Board of Seoul National University Hospital approved this study (2406-037-1542).

Patient selection

Careful donor selection is crucial for LLDRH. Suitable donors are healthy adults with typical vascular and BD anatomy. A single right HA, a single right PV, and a single right BD without a significantly sized right inferior HV are preferred because complex vascular and BD variations increase the risk of complications. The right liver graft should be 0.8% to 1.5% of the recipient's body weight, and the remnant liver volume should exceed 30%.

Preparations

The donor was positioned supine with legs split and straightened, in a reverse Trendelenburg position at 15° with a left tilt. To prevent movement as the bed position changed, the patient was secured. An operator stood between the donor's legs, while the first assistant and a scopist were positioned on the patient's left side.

Port placement

A trans-umbilical port was utilized for the camera, while the operator's two working ports were positioned approximately 30° away from the center of the liver. The other two ports were for an assistant.

Liver mobilization

After resecting the falciform ligament up to the inferior vena cava (IVC) and the right coronary ligament, the inferior portion of the right liver was detached from the right hepatorenal ligament. Care was taken to gently separate the right adrenal gland from the liver to minimize the risk of bleeding. A space was created between the liver and the IVC, during which the short HVs and the small right inferior HVs were also excised. The large right inferior HV was resected just prior to the extraction of the liver.

Hilar dissection

The cystic duct was left long and used for traction to expose the right PV and right HA. After temporarily clamping the right HA and the right PV, indocyanine green (ICG) was administered intravenously. The parenchymal resection line was then marked along the boundary indicated by the fluorescence images of the left liver.

Parenchymal dissection

The traction method is not always necessary, but it is helpful for large livers. Both parenchymal sides of the resection line were retracted by pulling a rubber band from outside the abdominal cavity. Liver parenchymal dissection was performed using an ultrasound device, CUSA, and a bipolar device. The segment 5 (V5) branches and the segment 8 branches (V8) branches of the middle HV (MHV) were temporarily ligated with plastic clips. The resection plane was followed along the right side of the MHV. The caudate process and remaining liver parenchyma above the IVC were transected after dividing the right BD under ICG fluorescence imaging. A hanging maneuver using a tube or an instrument was useful for facilitating the parenchymal dissection and reducing bleeding. The hilar plate was transected, leaving only the right PV and right HA in the hilum.

Graft extraction

A vinyl bag containing the right liver graft was removed through the Pfannenstiel incision following a longitudinal incision on the abdominal wall. This procedure was performed after dividing the right HA and applying staples to the right PV and HV. Additionally, the right IVC ligament was resected using a staple.

Hemostasis and fixation

A closed suction drain was positioned near the resection site to monitor bleeding and bile leakage. To prevent vascular torsion and ensure correct positioning, the remaining left liver was secured with sutures anchored to the remnant falciform ligaments.

Discussion

Open hepatectomy has long been the standard approach in living donor surgery, providing direct visualization and facilitating easier manipulation of the liver. However, this method is associated with higher morbidity, including significant postoperative pain, extended hospital stays, and larger scars. Robotic living donor hepatectomy, a newer technique, offers enhanced dexterity, precision, and a three-dimensional view of the operative field. It shares the benefits of minimally invasive surgery with laparoscopic living donor hepatectomy, such as reduced postoperative pain and quicker recovery [5,6]. However, robotic surgery incurs high costs and requires specialized training and equipment, which may limit its accessibility.

LLDRH offers the advantages of minimally invasive surgery, and a postoperative complication rate comparable to that of open donor right hemihepatectomy. These benefits have contributed to its widespread adoption and greater accessibility compared to robotic surgery. The use of flexible high-definition three-dimensional laparoscopic systems and ICG fluorescence imaging has significantly improved the precision and safety of LLDRH [7]. Additionally, these tools assist in the clear identification of vascular and biliary structures, thereby minimizing the risk of intraoperative complications [4].

As laparoscopic techniques continue to advance, the adoption of LLDRH is expected to grow [8,9]. Additionally, ongoing training programs and the accumulation of experience will enable surgeons to overcome the technical challenges associated with LLDRH.

Supplementary Materials

Supplementary Marterial 1. Surgical procedures.

Disclosure

No potential conflict of interest relevant to this article was reported.

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Author contributions

Conceptualization: YRC, KWL, KSS; Data curation: YRC, SKH, NJY; Writing–original draft: YRC; Writing–review & editing: YRC, SKH, NJY, KWL, KSS; Video-review: YRC, SKH, NJY, KWL, KSS.

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Single-Port Robotic Areolar Thyroidectomy: How I Do It

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With the recent development of the da Vinci Single Port (SP) robotic surgical system, new surgical methods applying the da Vinci SP in thyroid surgery are being reported. We first reported a method known as single-port robotic areolar (SPRA) thyroidectomy in 2023, and we performed more than 100 SPRA thyroidectomies in a year. SPRA is a more minimally invasive method than the existing bilateral axillary breast approach method, as the subcutaneous flap area is reduced by more than 50%. Herein, we present a step-by-step description of the method of SPRA thyroidectomy.

Keywords: Robotic surgical procedures; Minimally invasive surgical procedures; Thyroid gland

Introduction

According to the National Cancer Information Center [1], thyroid cancer is the most common cancer, ranking first in incidence each year. It predominantly affects women, with a male-to-female sex ratio of 0.3:1, and is most frequently diagnosed in individuals aged 30 to 50 years [1]. Therefore, various surgical techniques have been developed to avoid leaving visible scars on the neck. Initially, remote-access thyroid surgery was performed using an endoscopic approach. Following the introduction of robotic surgical systems, most remote access thyroid operations have transitioned to robotic techniques [2]. More recently, with the introduction of the da Vinci Single Port (SP), initial reports have emerged on single-port robotic thyroid surgery employing a trans-axillary approach [3,4]. The authors have developed a novel surgical method known as single-port robotic areolar (SPRA) thyroid surgery, which forgoes the axillary approach used in the previous bilateral axillary breast approach (BABA) method [5]. In this section, we present a detailed description of total thyroidectomy with central lymph node dissection using SPRA.

Case Presentation

A 35-year-old woman was diagnosed with left papillary thyroid carcinoma (PTC), with the tumor measuring 6 mm. A preoperative computed tomography scan indicated suspected metastasis in the left central lymph node. She was scheduled for SPRA thyroid surgery. During the procedure, a frozen biopsy of the central lymph node revealed metastatic PTC in five out of eight nodes at level 6, prompting a total thyroidectomy. The final pathology confirmed PTC, located on the left, measuring 6 mm, with microscopic extrathyroidal extension and metastasis in six of the 22 central lymph nodes. Postoperatively, the patient's vocal cord function re-

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mained normal, and she did not develop hypocalcemia. Three months post-surgery, just prior to radioactive iodine treatment, the thyroid-stimulating hormone–stimulated thyroglobulin level was below 0.2.

In this procedure, patients are positioned with their necks extended under general anesthesia. Intraoperative neuromonitoring is conducted using a NIM-3.0 endotracheal tube (Medtronic). The blueprint for the flap can be seen in Fig. 1. The da Vinci SP robot is docked through a 3-cm incision in the right areola, which allows access to both thyroid glands. An additional small incision in the left areola served as an auxiliary port. This port accommodates an 8-mm metal trocar, similar to those used in the da Vinci Xi, as illustrated in Fig. 2. A subcutaneous flap is created, and a suction irrigation tube or gauze ball is inserted through this port.

The process of creating a subcutaneous flap is divided into two steps. First, a 1:200,000 epinephrine saline solution is injected into the subcutaneous area, a 3-cm incision is made on the right areola, and blunt dissection is performed using a Mosquito-Kelly-vascular tunneler. This procedure mirrors the existing BABA technique, except that the axillary area is not accessed. Next, a 15-mm trocar is inserted into the right areola and the da Vinci SP camera is introduced through it. Further flap dissection is completed using an advanced bipolar device through the left areolar port. The flap is dissected beyond the head of the clavicle, along the sternocleidomastoid muscle and strap muscles, up to the upper level of the thyroid cartilage.

After the flap is completed, the robot is docked through the right breast incision, as shown in Fig. 3. The procedure utilizes two Maryland bipolar forceps (MBF) and one Cadiere forceps (CF). By setting the camera to Cobra mode, a 30° view identical to that of the conventional da-Vinci Xi 30° camera is achieved. The MBF is employed with both hands to split the midline of the strap muscles, revealing the trachea and thyroid gland. The thyroid isthmus is severed using the MBF. Then, the CF is used to grasp the isthmus and pull the thyroid in the opposite direction, detaching the strap muscle from the thyroid gland. The thyroid gland is elevated toward

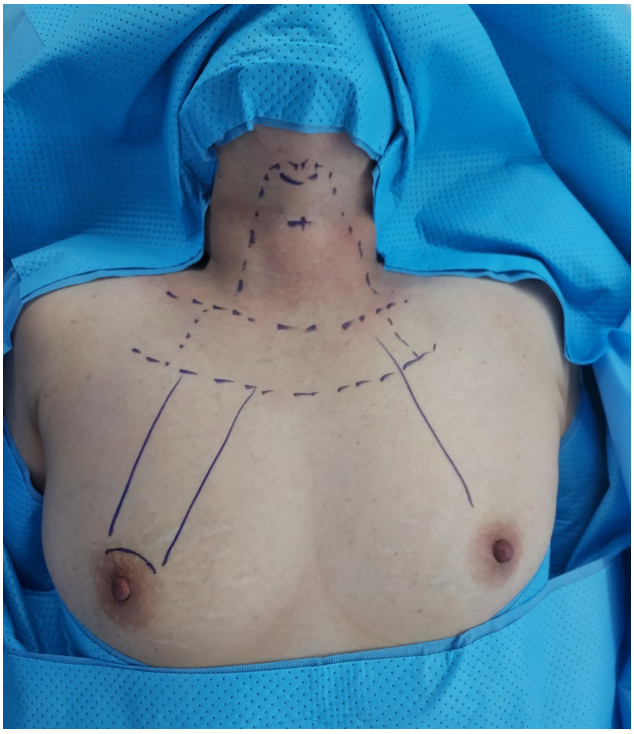

Fig. 1. Flap design.

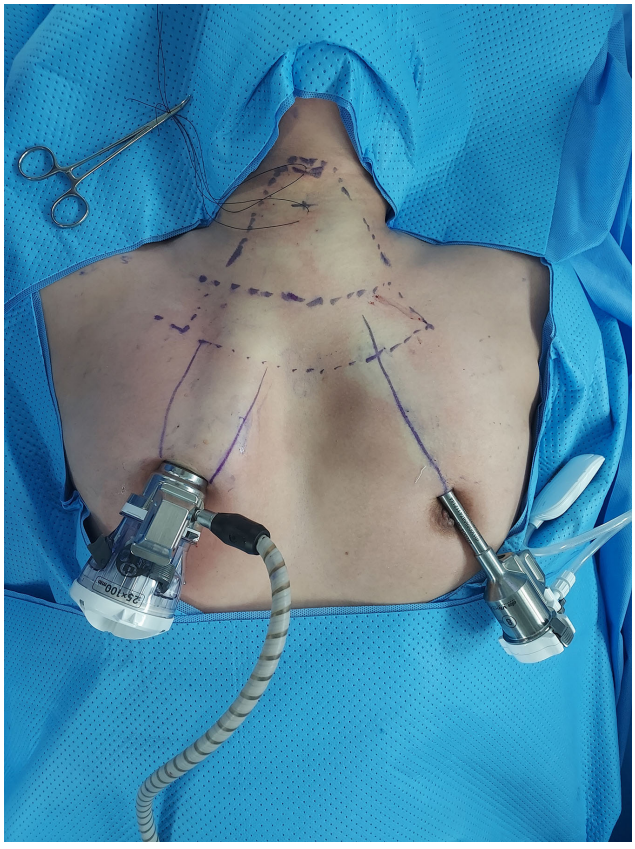

Fig. 2. Trocar insertion.

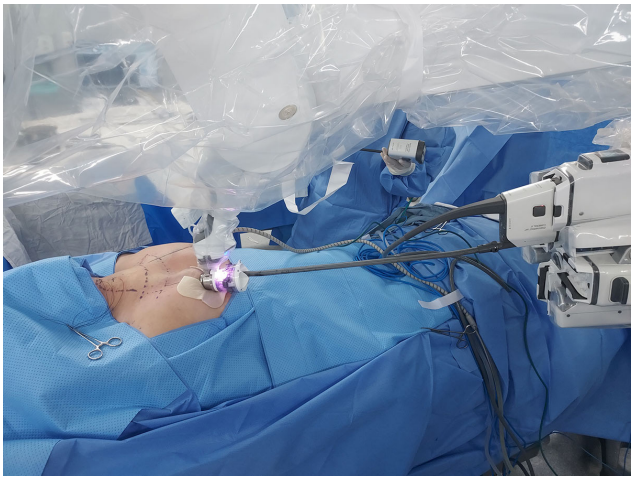

Fig. 3. Da Vinci Single Port docking.

the medial-superior side with the CF and the recurrent laryngeal nerve is located in the level 6 area. When searching for the nerve, the nerve monitor cable is attached to the MBF. It is crucial to preserve the nearby lower parathyroid gland while safeguarding the nerve. The thyroid gland is dissected from the trachea side, ensuring the preservation of both the nerve and the parathyroid gland. Caution should be exercised when dissecting the ligament of Berry, as it is the thickest. The cricothyroid space is opened, and the superior thyroid vessels are coagulated. During the removal of the superior thyroid area, preservation of the upper parathyroid gland is essential. This completes the thyroid lobectomy. The central lymph node may be dissected while locating the recurrent laryngeal nerve or after the thyroidectomy. The surgical specimen is placed in a plastic bag and removed through the da Vinci SP port. The contralateral thyroidectomy and lymph node dissection are performed similarly, after re-docking the da Vinci SP through the same port. Post-surgery, a closed drain is inserted through the right areolar incision, and the procedure is concluded with a skin bond after a Vicryl intradermal suture. The complete procedure for the SPRA total thyroidectomy with central lymph node dissection is demonstrated in the provided video clip.

This study received ethical approval from the Institutional Review Board (IRB) of the Inha University Hospital (IRB number: 2024-05-014).

Discussion

The SPRA thyroid surgery is an evolution of the BABA method, offering a more minimally invasive approach by eliminating the need for subcutaneous flap dissection in the bilateral axillary area. The SPRA method facilitates easy access to both thyroid glands through a top-down vision and does not require changing the robot docking based on the lesion side [5]. Additionally, the procedure allows upward movement from the central lymph node area, enabling the monitoring of the bilateral recurrent laryngeal nerve with a neuromonitoring system connected to the robot's bipolar grasper. The parathyroid glands are also more easily identified, benefiting from the fine instruments and the Firefly fluorescence function [6]. The surgical instruments of the da Vinci SP are significantly smaller (5 mm in diameter compared to 8 mm), allowing more precise dissection than those used in the da Vinci Xi. However, a notable limitation of the da Vinci SP system at present is the lack of advanced energy equipment, such as harmonic scalpels or vessel sealers.

We anticipate that SPRA thyroid surgery will gain popularity as more surgical experience is accumulated and as further comparative studies are conducted with BABA or open surgery, supporting its surgical and oncologic outcomes.

Disclosure

No potential conflict of interest relevant to this article was reported.

Author contribution

Conceptualization: JWY; Data curation: SML, HOH; Writing–original draft: MHS, SML; Writing–review & editing: JWY.

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Laparoscopic Sleeve Gastrectomy: Ensuring Safety and Achieving an Aesthetic Gastric Tube Shape

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Sleeve gastrectomy was first performed in Korea in the 2000s, and its frequency has gradually increased thereafter. It is now the most commonly performed procedure for bariatric surgery today. However, there are few detailed reports on this surgical method, and, in particular, no papers that include accompanying videos. Herein, we present the case of a 29-year-old male with a preoperative body mass index of 44 kg/m^2, who also had hypertension and hyperlipidemia. A conventional laparoscopic sleeve gastrectomy was performed using a 5-port technique. The surgeon employed two methods to ensure a consistent and aesthetic gastric tube, as well as patient safety: the non-tension method and a Lembert suture on the staple line at the neo–greater curvature. By utilizing the aforementioned two tips effectively, even inexperienced surgeons can perform laparoscopic sleeve gastrectomy relatively safely and effectively.

Keywords: Laparoscopic surgery; Sleeve gastrectomy; Morbid obesity

Introduction

In Korea, since 2019, bariatric surgery has been covered by national health insurance, with the procedure being performed on patients with a body mass index (BMI) of 35 kg/m^2 or above, or a BMI of 30 kg/m^2 or above with various accompanying conditions such as hypertension, diabetes, dyslipidemia, and others. Similar to the global trend in bariatric surgery, sleeve gastrectomy in Korea has gradually increased since its introduction in the 2000s, and is currently the most frequently performed surgery for obesity treatment [1-3]. Recently, laparoscopic sleeve gastrectomy is primarily performed by upper gastrointestinal surgeons with a certain level of experience in laparoscopic gastric cancer surgery. However, there is little domestic reporting on this surgical method, and particularly no papers with attached videos. Therefore, we aim to share not only the detailed procedure of conventional laparoscopic sleeve gastrectomy but also important tips for achieving a reproducible and consistent gastric tube shape.

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Case Presentation

Patient and preoperative evaluation

The patient is a 29-year-old male with a preoperative BMI of 44 kg/m^2. He had accompanying comorbidities of hypertension and hyperlipidemia for which he was taking medication. There were no significant findings in her past medical history, surgical history, or family history. Referred to our institution for surgical treatment through a private bariatric clinic, the patient underwent preoperative evaluations including endoscopy, computed tomography scan, and laboratory tests. Following a comprehensive assessment, including a general anesthesia evaluation, laparoscopic sleeve gastrectomy was determined to be the optimal surgical intervention for the patient.

Surgical setting and procedure details

The operator and the second assistant (scopist) are positioned on the patient's right side, while the first assistant and scrub nurse are positioned on the patient's left side. Energy devices and laparoscopic instruments should be prepared to be at least 45 cm in length. Additionally, trocars should be prepared in lengths appropriate to the thickness of the patient's abdominal wall. The patient must be securely fastened beforehand to prevent slipping.

Typically, a 2 cm incision is made above the umbilicus, and a 12 mm camera port is inserted using the open method. Before port insertion, Vicryl 1-0 is used to place at least four stitches in advance. This is done at this point to ensure precise identification of the fascia, which aids in secure wound closure. Five ports are used: 15 mm in the right lower quadrant, 5 mm in the right upper quadrant, 5 mm in the left lower quadrant, and 5 mm in the left upper quadrant. The triangle method was used for liver traction [4]. The surgical technique involves utilizing energy devices to carefully dissect branches of the gastroepiploic vessels along the greater curvature of the stomach, starting from the antrum to the Angle of His. The posterior fundus is completely mobilized, with adhesions in the lesser sac and anterior to the pancreas being meticulously divided. Subsequently, attention is directed towards exposing the left crus to assess for the presence of a hiatal hernia. Mobilization of fat tissue near the gastro-esophageal junction facilitates thorough examination of this region and ensures proper stapling. A bougie with a diameter of 38 French is then introduced orally and positioned adjacent to the lesser curvature.

Stapling commences approximately 4 to 6 cm proximal to the pylorus along the lateral aspect of the bougie. During stapling, the 1st assistant utilizes graspers in both hands to grasp the greater curvature, ensuring that they are perpendicular to the direction of stapling. It is crucial to minimize tension as much as possible to maintain consistent stapling, a method referred to as the non-tension method. At this point, if the first assistant does not consistently apply force when retracting the stomach to be removed, the remained stomach may become irregularly shaped, which can directly cause stricture or leakage after surgery. Particularly during stapling of the fundus, where it is important for effective removal, the 1st assistant's right-hand grasper should grasp and pull the posterior aspect of the fundus with adequate force.

Following each stapling, the anesthesiologist is requested to manipulate the bougie to confirm its unrestricted movement. The final stapling occurs approximately 1cm distal to the Angle of His. When removing the specimen, positioning the tip of the specimen at the top of the bag allows for easier extraction. Subsequently, upon specimen removal, reinforcement of the staple line is performed to minimize the risk of bleeding and leakage. An anchoring suture was placed at the mesocolon fat to prevent gastric torsion.

Discussion

The current case report holds significance in its detailed description of the surgical procedure, including actual surgical video, providing insights into intricate aspects of the procedure. This surgery employed a highly conventional sleeve gastrectomy technique utilizing five ports, with careful attention to safety considerations.

Regarding safety, two critical aspects were addressed. Firstly, a non-tension method was employed for the assistant during stapling to ensure consistent removal of the greater curvature and fundus, creating a uniform "banana shape" without irregularities. It is noted that

if traction force applied by the assistant varies during resection while utilizing a bougie, it may lead to uneven shapes and occasional strictures or leakage, as observed in some cases. In the United States, overcoming this challenge involves using a long stapler for resection. This device, called the Titan SGS stapler, is a novel stapling device with a 23 cm single-fire staple mechanism. Its potential benefits include the elimination of junctions and angulations in the staple line [5,6]. However, in Korea, the single long stapler is not yet widely available, thus necessitating the use of multiple 60 mm laparoscopic staplers. Nonetheless, employing this technique for stapling can maintain a consistent resection shape.

Secondly, the Lembert suture along the stapling line was implemented. A well-known randomized controlled trial reports that the rates of bleeding and leakage following sleeve gastrectomy are 1.2%–4.9% and 0.7%–3.3%, respectively [7]. Preventing bleeding and leakage is crucial as they can lead to life-threatening conditions such as reoperation, intensive care, or death [8]. Diab et al. [9], in a recently published meta-analysis, reported that staple line reinforcement could reduce postoperative bleeding by 0.25 times and leaks by 0.43 times. Various methods for staple line reinforcement have been developed and introduced. Notably, Rogula et al. [10] claimed that the Lembert suture method results in fewer leaks compared to other methods. Additionally, Lembert suture may be useful not only for reinforcing the staple line but also for adjusting the volume of the remnant stomach, similar to gastric plication. Therefore, for beginners, this can be a favorable choice for reducing postoperative bleeding and leakage.

Utilizing the aforementioned two tips effectively, even inexperienced surgeons can perform laparoscopic sleeve gastrectomy relatively safely and effectively.

Disclosure

In-Seob Lee is an editor-in-chief and Sa-Hong Min is an associate editor of the journal, but they were not involved in the peer reviewer selection, evaluation, or decision process of this article. No other potential conflicts of interest relevant to this article were reported.

Author contributions

Conceptualization: BOS, CSK, SGO, SAJ, JHY; Data curation: MWY, BSK, ISL, CSG, SHM; Formal analysis: BOS, CSK, SGO; Investigation: SAJ, JHY; Methodology: MWY, BSK; Software: ISL, CSG, SHM; Validation: BOS, CSK; Writing–original draft: BOS, CSK, SGO, SAJ, JHY; Writing–review & editing: MWY, BSK, ISL, CSG, SHM.

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Laparoscopic Conversion Surgery After Three Years of Palliative Chemotherapy for Unresectable Advanced Gastric Cancer

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Unresectable advanced gastric cancer remains a challenge in treatment, often requiring a multidisciplinary approach. Numerous studies have emphasized the role of palliative chemotherapy as the mainstay treatment for unresectable advanced gastric cancers. Some patients may still require conversion surgery to achieve survival gain and palliation. Several recent papers have shown the safety of laparoscopic gastrectomy after neoadjuvant chemotherapy for advanced gastric cancer. However, there is a difference between neoadjuvant chemotherapy and palliative chemotherapy in terms of the duration of chemotherapy (about 3 months vs. more than 6 months) and the initial state of advanced gastric cancer (resectable vs. unresectable and/or metastatic). To date, the safety and efficacy of laparoscopic gastrectomy after long-term palliative chemotherapy has been rarely reported. This video aims to share our experience in performing laparoscopic distal gastrectomy with D2 lymph node dissection after 3 years of palliative chemotherapy for an unresectable advanced gastric cancer.

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fra-pyloric vessels
00:04:48 Supra-pyloric dissection
00:05:12 Division of the right gastric artery
00:05:30 Division of duodenum
00:05:48 Supra-pancreatic lymph node dissection
00:08:10 Division of the left gastric artery
00:10:14 Dissection of proximal lesser curvature
00:10:19 Proximal gastric transection
00:10:59 Billroth II reconstruction
00:12:13 Course in the wards
00:12:33 Specimen
00:12:36 Pathology report

Disclosure

Hyuk-Joon Lee is the president of the Korean Surgical Skill Study Group and Seong-Ho Kong is an editorial board member of the journal, but they were not involved in the peer reviewer selection, evaluation, or decision process of this article. No other potential conflicts of interest relevant to this article were reported.

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Laparoscopic Pylorus Preserving Gastrectomy with Intra-Corporeal Gastro-Gastrostomy Guided by Intra-Operative Gastroscopy

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Gastric cancer detection is advancing to a point where screening programs can detect gastric cancer at early stages. This allows surgical procedures to be less radical than before. Studies have proven that pylorus preserving gastrectomy is a safe procedure in early T1a and T1b gastric cancers where the tumour location is in the middle third of the stomach. However, due to the small tumour size, determining an appropriate resection margin can be challenging. A few techniques have been developed to overcome this difficulty, and at our centre, we perform intra-operative gastroscopy to synchronize with the laparoscopic view and precisely determine the tumour location for optimal gastric resections. This allows the gastrectomy to be performed safely and prevents inadequate resection leaving tumour cells behind. This video is aimed at sharing our experience in performing pylorus-preserving gastrectomy.

Chapter Summary

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00:12:48 Irrigation of the peritoneal cavity
00:12:53 Resected gastric specimen
00:12:58 Final pathology report

Disclosure

Hyuk-Joon Lee is the president of the Korean Surgical Skill Study Group and Seong-Ho Kong is an editorial board member of the journal, but they were not involved in the peer reviewer selection, evaluation, or decision process of this article. No other potential conflicts of interest relevant to this article were reported.

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Instructions for authors

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GENERAL INFORMATION

Journal of Surgical Innovation and Education (J Surg Innov Educ, JSIE; pISSN 3022-9065/eISSN 3022-9073) is the official journal of the Korean Surgical Skill Study Group. Launched on June 30, 2024, with its inaugural issue as volume 1, number 1, JSIE is published biannually in English on the last day of June and December. JSIE is a peer-reviewed scientific journal dedicated to the advancement of surgical education and the dissemination of innovative surgical techniques. The journal's goal is to serve as an indispensable resource for surgeons, trainees, and healthcare professionals seeking to embrace innovation and refine their surgical practice in all surgical disciplines.

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b. Abstract
- The abstract should be structured (Background, Methods, Results, and Conclusions) and should not exceed 300 words.
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The main text should be organized in the following order: Introduction, Materials and Methods, Results, Discussion, Disclosure, Acknowledgments, References, and Figure legends. The position of figures and tables should be indicated in the text. Tables and Figures should be prepared separately. The text should not exceed 3,500 words (excluding abstract, references, tables, figures, and legends to figures and illustrations), and there should be no more than seven tables and figures in total, if possible.
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  • Journal articles

  1. Jung S, Lee HS. Robotic transabdominal preperitoneal repair for bilateral obturator hernia: a video vignette. J Minim Invasive Surg. 2024;27:40-43.

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- Tables: Present tables in consecutive order of their appearance in the main body, followed by table captions. Avoid explaining content in the tables that is already visible in figures. Ensure that the contents are presented clearly and concisely in English, allowing readers to understand the table without needing to refer to the main body. Include footnotes below the tables and define all abbreviations that are not standard in this field in footnotes. Indicate footnotes in tables in superscripts as a), b), c). Statistical values, such as standard error of the mean (SEM), should be presented. Omit vertical and horizontal lines in the tables.
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- Videos: Video clips related to surgery and advanced surgical techniques can be submitted for placement on the Journal website. The video may be up to 15 minutes in duration with a maximum file size of 2 gigabytes. Video exceeding 2 gigabytes should be sent via email (support@m2-pi.com). The available video formats are Windows Media Player (.wmv), MPEG (.mpg, .mpeg), Audio Video Interleave (.avi), and QuickTime (.mov). Free video editing assistance will be provided for submitted videos. There should be no audio narration in the videos, except for Dynamic Educational Manuscripts. Only written scripts (subtitles) should be used.

B. How I Do It

Manuscripts for “How I Do It” should be organized in the following order: Title page, Abstract, Introduction, Case Presentation, Discussion, Disclosure, Acknowledgements, References, and Figure legends. The title page and abstract should meet the general requirements outlined in the section above. The position of figures and tables should be indicated in the text. Tables and Figures should be prepared separately. These should be presented as briefly as possible. Succinct articles are more likely to be accepted for publication. Manuscript should be no more than 1,000 words, with a maximum of 10 references and 5 tables/figures in total (i.e., the total number of tables and figures and tables

should not exceed 5). The title page should be the first page. The Case Presentation section should not include any detailed information that can be used to identify the patient. Only a brief clinical information should be included that is relevant to the technique or procedure described in the paper. When using specific patient information and photos the Release Form for Photographs of Identifiable Patients or consent from the patient(s) and IRB approval might be required. All information that may reveal the patient identification or the hospital, including the date, must be omitted from images. Video clips that are presented in manuscripts should not exceed 15 minutes and must meet the requirements of video materials in the “Dynamic Educational Manuscripts” category, except for audio narration.

C. Dynamic Educational Manuscripts (video tutorials)

Dynamic manuscripts are submitted as video articles accompanied by regular text abstracts, which will play when the hyperlink is selected. A dynamic manuscript is recommended as a way for authors to demonstrate the details of surgical skill or technology with a video and explanation.

- Examples of this category could include: live demonstration or an intraoperative segment of the details of a surgical procedure/technology, a narrated educational lecture in any field of surgery, a surgical endoscopic procedure, a bed-side procedure, or a physical examination.
- References: Include no more than ten references below the chapter summary. Ensure all references follow the guideline stated in the Reference section above.
- Requirements:
- The video file resolution aspect ratio must be preferably 16:9 or alternatively 4:3.
- Video clips should not exceed 15 minutes in total.
- A high-quality audio narration in English must accompany the video. (Only for Dynamic Educational Manuscript)
- The maximum size for all files (including videos) in the submission is 2 gigabytes.
- Please submit a detailed chapter summary with time stamps and titles for key points in your video content.

  Ex) 00:00:01 Introduction
  00:00:10 Case summary
  00:00:26 History of present illness

- Do not use any soundtrack.
- Annotation of anatomic structurestructures or a brief explanation is encouraged.

D. Review Articles

Review articles provide concise reviews of subjects important to medical researchers and can be written by an invited medical expert. Both solicited and unsolicited review articles will undergo peer review prior to acceptance.

These have the same format as original articles, but the details may be more flexible depending on the content. The length of the manuscript should not exceed 5,000 words, 100 references, and no more than seven tables and figures in total, if possible. The abstract should not exceed 300 words and must be written as one unstructured paragraph.

E. Short Communications

A Short Communication generally takes one of the following forms: A substantial re-analysis of a previously published article in JSIE or in another journal; a brief report on the comments and discussion of a previously published article about the surgical techniques described in the "How I Do It" or "Dynamic Educational Manuscript” types; an article that may not cover “‘standard research” but that is of general interest to the broad readership of JSIE; a brief report of research findings adequate for the journal’s scope and of particular interest to the community.

An abstract is required in an unstructured format. The word count of the main text should not exceed 1,000, and the total number of references is recommended to be equal to or less than 10. A submission in this category may be edited for clarity or length and may be subject to peer review at the editors' discretion.

F. Letters to the Editor

Any opinion or inquiry on a published paper can be addressed to the Editorial Board. An abstract is not required. A title page, main text, and references are required. The total number of references is recommended to be equal to or less than 5. The word count of the main text should be equal to or less than 1,500.

G. Editorials

An Editorial is usually invited by the Editorial Board. An abstract is not necessary. Title page, main text, and references are required. The total number of references is recommended to be equal to or less than 10. The word count of the main text should be equal to or less than 1,500.

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The cover letter should inform the editor that neither the submitted material nor portions have been published previously or are under consideration for publication elsewhere. The authors should also explain why the submitted manuscript should be reviewed and considered for publication for JSIE.

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