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TOWARDS FURTHER PENETRATION OF ESD TECHNIQUES – WHAT IS THE ROLE OF JAPANESE ESD EXPERTS?

DESIRABLE TRAINING AND ROLES OF JAPANESE ENDOSCOPISTS TOWARDS THE FURTHER PENETRATION OF ENDOSCOPIC SUBMUCOSAL DISSECTION IN ASIA

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Endoscopic submucosal dissection (ESD) was invented in Japan and is now permeating into the rest of the world. Therefore, it is necessary to elucidate the desirable ESD training by knowing the current status of ESD training in Japan. After this, we mainly discussed the following three topics: (i) requirements for preceptees to start ESD training; (ii) requirements for competent endoscopists in ESD; and (iii) requirements for preceptors in the first half of the upper gastrointestinal tract session at the Endoscopic Forum Japan 2011. Additionally, we discussed what Japanese endoscopists can do for further permeation of ESD outside Japan, especially in Asia in the second half. The session was wrapped up by the conclusions that it was absolutely necessary to establish official training courses authorized by the Japan Gastroenterological Endoscopy Society with certification for trainees and trainers and our Japanese endoscopists had a responsibility to spread ESD safely and reliably by collaborating with enthusiastic endoscopists in each country which have different backgrounds in terms of incidences and screening systems of target diseases, accessibility to endoscopy, medical economics, national characters, and so on.

Key words: competence, endoscopic submucosal dissection, learning, teaching, training.

INTRODUCTION

Endoscopic submucosal dissection (ESD) has permeated throughout Japan with the enthusiastic efforts of pioneer endoscopists and supportive cooperation by endoscopic societies and endoscopic companies in the past decade. However, the activities, which may emerge voluntarily by popular demand, are never considered officially certificated ones for both trainees and trainers, although we recognize that these are major driving forces to the successful permeation. In order to further spread ESD inside and outside Japan, the maturity of training schemes in Japan as a role model is necessary. Additionally, it is also mandatory to clarify current status regarding ESD in foreign countries in order to pick up

their demands. Therefore, we conducted a session at the Endoscopic Forum Japan 2011 at Hachioji, Tokyo, Japan, on 30 July 2011, to establish current position statements of ESD training in Japan and roles of Japanese endoscopists for further spread of ESD especially in Asian countries.

AGENDA OF THE SESSION

Themes of the first and second halves of the session were, 'Desirable ways for learning and teaching of ESD in Japan' and 'Awaiting solutions related to ESD in Asia', respectively. After opening remarks by moderators, Dr Fujishiro and Dr Jung, definition of terminology regarding ESD training was introduced by Dr Kakushima.¹

In the first half, Dr Goda first summarized a questionnaire regarding ESD training for Japanese attendees to share current status of ESD training in Japan,² which was followed by presentations from Dr Morita and Dr Oda concerning short introductions of hands-on training courses and a learning curve of stomach ESD,³ respectively. The rest of the

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first half was used for discussion about desirable ways of ESD training in Japan.

In the second half, three overseas attendees, Dr. Jung, Dr. Lee and Dr. Zhou, first introduced the past, present and future perspective of ESD in Korea, Taiwan and mainland of China, respectively, which was followed by a summary of a questionnaire regarding general aspects of ESD for overseas attendees by Dr. Uedo, including indication, permeation, training, registration and quality control, in comparison with the Japanese situation in order to share fundamental knowledge of ESD in Asian countries.⁴ The rest of the second half was also used for discussion about awaiting solutions related to ESD in each country.

Position statements throughout the session were wrapped up by all panels and moderators, and, finally, closing remarks were addressed by moderators at the end of the session.

DESIRABLE WAYS FOR LEARNING AND TEACHING OF ESD IN JAPAN

The major drawback of the discussion regarding training in Japan is that no official structured training courses sponsored by the Japan Gastroenterological Endoscopy Society (JGES), containing didactic lectures, dry laboratory training, training by using live animals and so on, are available so far. Therefore, almost all the technical skills must be handed down to the younger generation by senior doctors in their affiliated hospitals or by personal communication with other skilled endoscopists at other hospitals. These kind of traditional training schemes in Japan could work well up to recent years, but there is no guarantee of maintaining the 'Japanese spirit' in the future. Additionally, ethical problems have been considered more seriously, and patient-based training such as supervised endoscopy on live patients is not acceptable from the beginning of the training. To undergo simulation-based training is costly and time-consuming, and it may be impossible for endoscopists in small- or middle-sized hospitals alone. When considering the situation, it is desirable to have official training centers equipped with lecture spaces and simulation-based training workstations governed or certificated by the JGES, but none are available so far. When our endoscopic society certificates and qualifies trainees and trainers at each course, the credentials may protect the trainees in terms of medical safety management and the trainers can be rewarded for their educative efforts. Because the time was limited, we focused on three topics: (i) requirements for preceptees to start ESD training; (ii) requirements for competent endoscopists in ESD; and (iii) requirements for preceptors for ESD. These were discussed in order to establish an upcoming desirable training program especially for ESD.

REQUIREMENTS FOR PRECEPTES TO START ESD TRAINING

Fellows of the JGES are certificated when the applicants undergo endoscopic training at teaching hospitals certified by the JGES for 5 years with 1000 esophagogastrroduodenoscopies, 100 colonoscopies, 20 therapeutic endoscopies, determined numbers of participation and presentation at medical congresses, papers, and, finally, pass the written examination performed annually by the JGES. However, it does not

matter to the Japanese panels whether the preceptees are certificated fellows or not.

The novice endoscopists who want to learn ESD must have knowledge as primary physicians who can undergo basic management of the patients except for technical aspects of ESD. Additionally, an average level of endoscopic skills, such as routine endoscopy with high-quality photos, detection and characterization of the lesions, taking a target biopsy, smooth insertion into the cecum at colonoscopy, and reliable techniques of hemostasis, polypectomy and endoscopic mucosal resection, is recommended, although these skills are surely improved during preceptorship of ESD.

The most important issues should be the preceptee's attitude to wanting to acquire the sufficient knowledge and competent skills of ESD. Their nature or character may affect the mastery of the time-consuming procedure, so all the panels agreed with the opinion that not every endoscopist can become a preceptee of ESD.

REQUIREMENTS FOR COMPETENT ENDOSCOPISTS IN ESD

Competent endoscopists must be endoscopists with a minimum acceptable level of knowledge, skills and expertise, practicing individually without supervision of senior endoscopists. So, self-awareness is conceptually the condition for competent endoscopists. If the lesion is considered to be too difficult to treat by oneself, the competent endoscopist can send the patient to a more skilled endoscopist.

In general, competent endoscopists in gastric ESD may complete almost all resections for lesions with the guideline indication of ESD (<2 cm in size without ulcerative finding) within 2 h, which would result in acceptably high (e.g. >90%) curative resection rates with acceptably low (e.g. <3%) complication rates. The levels may be accomplished after 30 cases of gastric ESD from the experiences of the National Cancer Center Hospital, Tokyo, Japan. The competent endoscopists must also have not only technical skills but also sufficient knowledge of devices and settings for ESD with their own modification, perioperative monitoring and management, how to rectify complications, and so on. A good relationship with patients, co-medical staffs, surgeons, and so forth, may be also another important aspect of competent endoscopists in ESD.

In terms of esophageal ESD, the majority of panels considered that endoscopists must be proficient in gastric ESD before starting actual ESD in humans. This may be true in Japan, where the incidence of gastric cancer is much higher than that of esophageal cancer, but endoscopists in other countries where esophageal cancer is predominant (e.g. Taiwan) can start ESD from the esophagus after sufficient training by using isolated organs or living animals and other instructive resources available.

REQUIREMENTS FOR PRECEPTORS FOR ESD

Differing from the requirement for preceptees, the majority of panels consider that preceptors have to be certificated by some authorized body such as certificated fellows of the JGES, regular staffs of teaching hospitals, assistant professors of university hospitals, and so on. Preceptors are responsible

for the actions of the preceptees concerning ESD training, especially for patient-based training. All the troubles emerging between preceptees and patients must be settled by the preceptors. Proficiency in ESD is desirable for preceptors, but competent endoscopists in ESD who can totally manage patients without supervision of senior endoscopists are acceptable as preceptors. The lack of a preceptor training program must be further discussed, which is more important than a training program for preceptees in terms of spreading ESD worldwide.

AWAITING SOLUTIONS RELATED TO ESD IN ASIA

Backgrounds of each country are quite different in terms of incidence and screening system of target diseases, accessibility to endoscopy, medical economics, national characters, and so on. Therefore, it is naturally impossible to draw the same conclusions in all the countries concerning the needs for Japanese endoscopists to spread ESD.

In the case of Korea, the incidence of gastric cancer is quite high, similar to that in Japan. Therefore, stomach ESD has already spread nationwide after its introduction around 2004. The outcomes are quite similar to Japanese ones and there are a sufficient number of ESD endoscopists in Korea. Additionally, the Korean Endoscopic Society has started a central register for stomach ESD cases, which will validate the promising technique outside Japan. At this stage, it may not be necessary for Japanese endoscopists to visit Korea in order to train ESD trainees. The roles of Japanese endoscopists must be refinement and innovation of ESD techniques owing to mutual exchanges and multicenter studies among both of Japanese and Korean people.

In the case of Taiwan, late detection of gastric cancer due to relatively low incidence and inaccessibility to immediate endoscopy is still a big problem. The status may be similar in Southeast Asian countries such as Singapore. Therefore, ESD is performed at a small number of tertiary care hospitals there. At this moment, ESD is not popular in Taiwan, but the technique must be implanted for the patients who need the minimally invasive treatment. Japanese endoscopists can assist promising and enthusiastic Taiwanese endoscopists to undergo cognitive, simulation- and patient-based training with pioneer Taiwanese endoscopists.

In the case of the mainland of China, the huge area and the huge population cannot be covered by a small number of pioneer Chinese endoscopists. The incidence of gastric cancer is high, especially in the northern part of China, so it is mandatory to make as many preceptors for ESD as possible. Japanese endoscopists can organize a training course to train the Chinese trainers, which will be succeeded to the upcoming Chinese organizers in each province.

CONCLUSION

Establishment of an official training program especially for ESD is highly demanding, even in Japan. The training program must contain not only cognitive-based training but also simulation-based training such as hands-on training, and, if possible, that patient-based training is also officially considered at teaching hospitals. The minimal requirements and final attainments for trainees at each level must be discussed. The training program for trainers is more highly demanding for permeation of ESD worldwide and it is also necessary for trainers to be evaluated and rewarded. Endoscopists in Asian countries are waiting for Japanese endoscopists to assist them more or less in different ways according to the background of each country.

CONFLICT OF INTEREST

None declared.

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