WHICH KIND OF ENDOSCOPIC DOCTORS SHOULD RECEIVE ENDOSCOPIC SUBMUCOSAL DISSECTION (ESD) TRAINING? ESD TRAINING IN THE NANJING DRUM TOWER HOSPITAL OF CHINA

Min Chen
Nanjing Drum Tower Hospital - Nanjing Medical University, China

Background & Aims: Endoscopic submucosal dissection (ESD) is a new safe and effective technique of endoscopy which is minimally invasive. This technique makes the en-bloc resection of larger lesions finished more safely and effectively, and provides complete specimen for pathological diagnosis so as to prevent recurrence. It is the first choice for the management of premalignant lesions and early gastric cancer. The elevated risk of complications and technical complexity of endoscopic submucosal dissection has limited its implementation in our medical system. How to improve the level of ESD training effectively, that more endoscopists could master this technique and benefit to more patients, becomes the attention focus of the endoscopists. Firstly, how to choose the appropriate doctor to receive ESD training aroused the focus of more and more endoscopists. Therefore, our study aimed to investigate the prerequisites for those endoscopic doctors who were suitably chosen to attend the ESD training.

Methods: Our study was enrolled in 41 fellows from various cities of China who attended ESD training in the endoscopic center, the affiliated Drum Tower Hospital of Nanjing Medical University. The general information was collected in the forms including name, age, gender, the individual performed gastroscopy cases, the individual performed colonoscopy cases, the use of Narrow band image (NBI) technique, the use of magnifying endoscopy (ME), and uses of Endoscopic Mucosal Resection (EMR), Endoscopic Ultrasound (EUS), Endoscopic Retrograde Cholangiopancreatography (ERCP), etc. Then each fellow must finish four animal model experiments in vitro (pig esophagus or pig stomach). And the average performance time was then calculated including cutting time and dissection time. And the average area of specimen was then recorded by measuring the length and width of specimen. Finally, the performance speed was acquired by dividing the performance time (min) and the average area (cm²).

Results: Among the 41 ESD fellows, the male fellows were 26 doctors and the female covered 15 doctors. And the average age was 36.07±4.44 year old ranging from 27 to 53 years old. The performing method was single and not double. According to linear regression analysis, the individual gastroscopy cases (N>5000), the individual colonoscopy cases (N>3000), the detected early cancer cases in upper GI tract (N>30), the detected early cancer cases in lower GI tract (N>10), and the uses of ME and EMR technique were statistically correlated with the performance speed of ESD fellows (P<0.05). Carrying out NBI, ERCP and EUS techniques before training was not statistically correlated with the performance speed of ESD fellows (P>0.05).

Conclusions: The individual gastroscopy cases, the individual colonoscopy cases, the detected early cancer cases in upper GI tract, the detected early cancer cases in lower GI tract, and the use of ME as well as EMR technique were statistically correlated with the performance speed of ESD fellows (P<0.05). The uses of NBI, EUS and ERCP technique were not statistically correlated with the performance speed of ESD fellows (P>0.05). Therefore, this study provided the enough theoretical basis for us to select the appropriate ESD fellow in the future.

croweminchan@aliyun.com