Application of bronchoscope for the placement of nasoenteric feeding tube: new ideas from old ways

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The novel technique of nasoenteric feeding tube (NET) placement with bronchoscope proposed by Cao et al. (1) is an interesting report and deserve in depth discussion and further study. In spite of limited case numbers, Cao et al. validate that placing nasojejunal tube with bronchoscope is safe and feasible in post esophagectomy patients.

Early enteral nutritional support for clinical critical ill patients improves outcomes in a variety of situations (2,3). For those patients with advanced esophageal cancer, most of them have been in poor nutrition condition before surgery. Pre and postoperative enteral nutritional support is thought to be a key factor to reduce complications and accelerate patient recovery. Early enteral feeding following surgery can be given orally, via a jejunostomy or via a nasojejunal tube (4). Postoperative nasojejunal tube feeding was not significantly different from jejunostomy tube feeding regarding in catheter efficacy but with a less tube-related complications rate (5,6). Thus, placement of a NET beyond the pylorus after esophagectomy is one of the safe options to establish routes for enteric nutrition. However, postoperative anastomotic leakage, intraoperative placed tubes fall off or poor oral intake after surgery patients raised the need of reinsert NET for these kinds of patients.

Although insertion of a nasoenteric tube is a routinely performed procedure, how to insert it quickly, precisely without complications is an important thing that can’t be overemphasized for those critically ill patients, such as postoperative anastomosis leakage, gastroparesis patients. Blindly insertion with frozen nasogastric (NG) tube might increase the success rate but also pose unpredictable risks and injuries to these patients after esophagectomy (7). Endoscopy-assisted nasoenteric tube insertion is a good alternative for those patients. Ultrathin gastroscopy has been developed and used in nasoenteric tube placement in more than 10 years, which has been proved its safe and feasible (8,9). The single disadvantage is its poor accessibility. On this point, Dr. Cao et al. shared their excellent experience in using bronchoscope in NG tube intubation. Actually, in 2015, Bhandari et al. has already proposed similar idea and practiced this idea in one head and neck cancer patient who underwent hemi-mandibulectomy with restricted mouth opening (10). Similarly, Der Kureghian et al. also reported NG tube insertion in difficult cases with the aid of a flexible nasoendoscope (11). Despite so, Cao et al. should be congratulated on reporting the largest series so far in 48 patients and confirmed that using bronchoscope assisted nasoenteric tube placement can be applied safely and efficiently.

Although this technology is only reported in patients after esophagectomy (mainly of the indication to provide nutrition route after anastomotic leakage), we believed this new technique in fact could be safely practiced in all patients with need of NG tube insertion, such as loss of conscious head injury patients, which could reduce the possibility of...
NG tube malposition. However, it should be noted that the flexibility of bronchoscope is not as good as the commonly sued gastroscope (two ways versus four ways). Extra care should be taken in not over bending the bronchoscope when attempting to pass through the distorted pylorus in post esophagectomy patients, which might result in breaking of the fiberoptic fibers.

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Footnote

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References