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Invited Commentary

The tube, the pancreatoduodenectomy—and the dogma

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The infamous nasogastric (NG) decompression tube was introduced by Levin in 1921 and quickly gained popularity[1]. The hazard of aspiration during induction of anaesthesia was well acknowledged and it was still a decade before endotracheal intubation greatly reduced the risk. The popularity of the NG tube did not abate, however, and it soon became a pillar of postoperative care in abdominal surgery together with its omnipresent accomplice, the 'nil-by-mouth' doctrine. By the turn of the millennium, half the patients undergoing colorectal resections in the Netherlands had an indwelling NG tube for at least 2 days and a quarter were allowed no solid food until they had bowel movements[2]. The situation was not much better in other countries. The heavily entrenched—albeit undocumented—routines of postoperative NG tubes and nil-by-mouth proved to be the main obstacles to modernizing perioperative routines in gastrointestinal surgery, and reluctance to change was especially pronounced for pancreatoduodenectomies (PDs). The safety and feasibility of performing major surgery without routine NG tubes and with early food at will was evaluated in a Norwegian multicentre RCT including 81 patients undergoing PD[3] 5 years prior to the first comprehensive set of enhanced recovery after surgery (ERAS) recommendations for PDs[4]. These guidelines recommended *against* routine use of NG tubes following PD and for patient-controlled intake of food[4], and this has been reiterated in the latest revision.

The meta-analysis by Ammar and co-workers[5] includes eight studies of which only one was randomized. The authors conclude that routine use of NG tubes after PD was associated with increased rates of delayed gastric emptying (DGE), major complications and longer duration of stay. Associations derived from non-randomized studies for endpoints which are as prone to bias as DGE and duration of stay must be read with caution. The conclusions, however, are in line with the ERAS guidelines and more recent updates.

Interestingly, the Ammar-paper suggests that routine use of NG tube is associated with increased rates of DGE. While it could be a spurious finding, a true association may well be the case: as the definition of DGE is based on an assumed need for NG tubes without any objective confirmation, a perceived need for an NG tube will result in more diagnoses of DGE being made, signalling increased need for an NG tube, etc. As for complications, there will always be a possibility that these prompted the use of an NG tube, and not vice versa.

We should not encourage more randomized trials investigating routine NG tubes following PDs. There is no equipoise and we have more pressing issues to pursue. We should remove the NG tube before extubating the airways following a PD and allow our patients to drink and eat without delay, cautioning them to begin carefully and step up according to tolerance. NG tubes may have to be reinserted in a minority, mostly for a short duration unless in the setting of a major complication.

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