To the Editor:

When it comes to replacing a worn-out or dysfunctional PEG, if it is decided not to remove the PEG percutaneously or if the PEG is not designed for such removal, the generally accepted endoscopic technique involves snaring the internal bumper and dome assembly, cutting the external tubing close to the skin line and bringing the PEG out through the mouth. Following its removal, two additional endoscopic intubations may be required if it has been decided not to utilize one of the low profile replacement “buttons” or a Foley catheter-type device anchored by a balloon. The first additional endoscopic step involves re-inserting the endoscope in order to grasp the guidewire placed through the existing gastrostomy tract, and the second involves repeating the endoscopy to ensure optimal placement of the new PEG once it is in position.

Since endoscopy in demented or debilitated patients is often difficult, especially when these individuals are placed in the supine position that is frequently utilized to perform a PEG, we describe a technique whereby the endoscopic removal of the original PEG is coupled with the insertion of the guidewire in a single-step procedure, thus reducing the total number of endoscopic intubations from three to one.

Our technique is to snare the gastrostomy tube just behind the internal dome (or the bumper if it is an older Sacks-Vine type). The external PEG tubing is then pulled upward so that it can be cut as short as possible at the skin level. In order to avoid having the PEG tubing slip into the stomach after it is cut, it is first grasped by forceps at the skin line. We then place a soft tipped guidewire through the cut end of the PEG tubing by loosening the forceps just enough to allow its passage through and out the central lumen of the internal dome. Under direct visualization, the snare is then closed tightly behind the dome, which ensnares the guidewire at the same time. The external forceps are removed and the internal dome and the short length of the remaining tubing with the guidewire protruding are drawn up tightly against the tip of the endoscope. The entire assembly is then withdrawn from the stomach.

This technique enables us to remove the old PEG and to have the new guidewire already in place so that the need to perform a second endoscopy to snare the guidewire becomes unnecessary. The new PEG is then passed over the guidewire and into position in standard fashion. In many patients, we have found it unnecessary to perform a third intubation to confirm placement of the PEG in the stomach, especially when we are utilizing a well-formed gastrostomy tract. A simple way of ensuring adequate placement of the new PEG is by matching the external markings at the skin level to make sure that the new PEG is at the same depth as the PEG that was replaced. In addition, free movement of the new PEG inside the stomach, and within the gastrocutaneous fistulous tract, confirms good positioning. If there remains any question about the location of the replacement PEG, repeat endoscopy to confirm its location is recommended.

To date, we have been successful with this one-step PEG replacement technique in more than 25 patients who have required a new PEG. Even with the soft-tipped flexible guidewire protruding, we have not found removal of the internal dome assembly to be any more difficult. In cases where we are removing the larger hard-domed PEG (AEI Silicone Internal Dome; Bard International Products, Tewksbury, Mass.), we occasionally affix a foreign body sheath to the tip of the endoscope to avoid traumatizing the esophagogastric junction and esophagus at the time of removal. For PEGs that are specifically designed to be moved percutaneously (e.g., Soft Silicone Guidewire PEG; Bard International Products), we still find it more convenient and less traumatic to the fistulous tract to utilize our technique and remove the soft-domed PEGs endoscopically, since the same number of intubations would still be necessary if a new PEG is inserted endoscopically following percutaneous removal. Although the newer balloon-anchor replacement PEGs have a longer life span than the older Foley-type devices, we often prefer to replace existing PEGs with a similar device in the majority of bedridden nursing home patients, as the longevity of these PEGs is often considerably longer than those anchored by an inflatable balloon.3 We would also add that it is not our policy to remove a PEG by simply cutting the tubing at the skin line and allowing the internal assembly to spontaneously pass through the gastrointestinal tract as has been recently suggested.2 Our own experience,4 and that of others, indicates that this may be a dangerous maneuver. As a compromise, where a more simplified endoscopic PEG removal approach is desired for patients in whom percutaneous removal and replacement is not possible or practical, we urge consideration of our one-step replacement technique.

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REFERENCES