



To PEG or not to PEG? Feeding the Incompetent Patient

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End-of-life care is a complicated business. An intricate matrix of medical, ethical, legal, financial and cultural aspects confront those involved in the patient's care, and complex decisions have to be made, many times without knowing what the 'correct' decision is. One is often unable to delineate the delicate line between effective care and medical futility. The aims of the treatment are also difficult to define as medical personnel commonly view life extension as the ultimate goal, but quality of life is no less important, not to mention meaning of life – which is impossible to evaluate and quantitate.

Feeding an incompetent, demented geriatric patient is a common challenge that raises the above questions on a daily basis. Since eating is such a basic component of life, losing the ability to perform it is a major blow to our integrity as human beings. The result of this inability is a combination of medical problems (malnutrition, aspiration) and psychological problems (being dependent on others, losing the joy of eating). Therefore, the decision to stop nutritional support [1] is almost inconceivable. However, providing the required adequate nutrition can sometime become a major technical challenge, and technical solutions are indeed available. If possible, careful spoon feeding is evidently the preferred approach, when the swallowing mechanism is functional. Although time consuming, this method maintains the humanistic approach, by allowing for an ongoing, direct interpersonal relationship, and maintaining the joys of eating, smelling and tasting.

When one loses the ability to swallow, tube feeding is needed and several options do exist: nasogastric tube is the simplest to insert, but may be uncomfortable for the patient; it is easily removed, but it may be associated with increased risk of aspiration. More invasive techniques include the insertion of a gastric or a jejunal feeding tube. The main advantage of these, after overcoming the difficulty of insertion, is the ease of use coupled with the relative comfort of the patient. With the introduction of percutaneous endoscopic gastrostomy [2], the insertion of a gastric tube without the need for a surgical procedure became a very attractive option to provide feeding when the oral route is no longer effective.

As with many new useful techniques, the initial excitement led

to widespread adoption, and PEG is now considered a routine procedure indicated for most cases of inability to feed orally. However, one has to remember that no technique is devoid of complications [3] and we must be wary of the slippery slope of overuse [4]. PEG has been attributed advantages that were never proven to be true, like prevention of aspiration or the prolongation of life. In fact, studies have shown that the opposite is true [5].

With the realization that this 'miracle' technique is not a panacea for the disabled and demented patient, reevaluation of the indications for PEG insertion was called for. Indeed, studies have shown that PEG may be associated with high 30 day mortality [6]; it does not improve the patient's comfort and does not prevent aspirations [7], despite commonly held precepts [8]. As the pendulum swings, the use of PEG may have decreased recently [9], and educational interventions may further contribute to proper selection of patients who can really benefit from this procedure [10].

In the present issue of *IMAJ*, the article by Golan et al. [11] adds another aspect to the debate. It appears that the decision to insert a PEG in a demented patient is affected by factors other than the pure care for his or her well-being. Institutional and financial factors may add pressure to "have the patient PEGed" before being transferred to another institution, as this may convert him/her from a "complex nursing" patient to a simple one that can be managed in a state-funded institution. By comparing the attitudes of physicians who order the PEG for their patients with those of the patient's family member and the gastroenterologists who provide this service, Golan and co-authors unveil a major discrepancy between the ideal situation in which PEG is a properly indicated procedure performed after a careful selection, and the common reality familiar to us all. But, one may also see these differences in opinions between those involved in the care of the patient as a manifestation of the complexity of these situations.

It has been shown that the rate of enteral feeding in end-stage dementia differs among countries and cultures [12]. When

PEG = percutaneous endoscopic gastrostomy

trying to evaluate the adequacy of the decision on how to feed the patient, it is important to define the purpose before we start to measure results and study the outcome. One also has to define the alternatives in order to perform a valid comparison. No one will argue that careful spoon feeding [13] is a better way of showing care to the patient and providing him with adequate nutrition coupled with humanistic compassion. When possible, this should be our goal even if it is admittedly a time-consuming approach. However, when deglutition is abnormal and tube feeding becomes necessary, we can no longer use hand-feeding as a reference and must compare different methods of tube feeding. Once we decide it is immoral to stop feeding altogether, despite the patient being in an end-of-life state, we cannot use survival as an outcome to measure. If we rely on institutions to provide care, we cannot disregard the financial and institutional factors that influence patient care. Playing the holier-than-thou role will not add much to the discussion. The real question, not really referred to in Golan's article, is whether PEG is indeed worse (or better) than a nasogastric tube.

Are we inserting too many PEGs? Very likely. Should we stop inserting them? Certainly not. Evidently, the referring doctors need to be educated about the indications for PEG as opposed to common and unproven myths. Certainly, family members should be maximally informed about the pros and cons of the procedure. Should the gastroenterologists take a more active role in decision making, or remain the technicians providing this service? The answer for that is kept with the undersigned...

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References

1. Ashby MA, Mendelson D, Gardner; re BWV: Victorian Supreme Court makes landmark Australian ruling on tube feeding. *Med J Aust* 2004;181:442-5.
2. Ponsky JL, Gauderer MW. Percutaneous endoscopic gastrostomy: a

nonoperative technique for feeding gastrostomy. *Gastrointest Endosc* 1981;27:9-11.

3. Mainie I, Loughrey A, Watson J, Tham TC. Percutaneous endoscopic gastrostomy sites infected by methicillin-resistant *Staphylococcus aureus*: impact on outcome. *J Clin Gastroenterol* 2006;40:297-300.
4. Oyogoa S, Schein M, Gardezi S, Wise L. Surgical feeding gastrostomy: are we overdoing it? *J Gastrointest Surg* 1999;3:152-5.
5. Ganzini L. Artificial nutrition and hydration at the end of life: ethics and evidence. *Palliat Support Care* 2006;4:135-43.
6. Lang A, Bardan E, Chowders Y, et al. Risk factors for mortality in patients undergoing percutaneous endoscopic gastrostomy. *Endoscopy* 2004;36:522-6.
7. Cervo FA, Bryan L, Farber S. To PEG or not to PEG: a review of evidence for placing feeding tubes in advanced dementia and the decision-making process. *Geriatrics* 2006;61:30-5.
8. Vitale CA, Hiner T, Ury WA, Berkman CS, Ahronheim JC. Tube feeding in advanced dementia: an exploratory survey of physician knowledge. *Care Manag J* 2006;7:79-85.
9. Braun UK, Rabeneck L, McCullough LB, et al. Decreasing use of percutaneous endoscopic gastrostomy tube feeding for veterans with dementia-racial differences remain. *J Am Geriatr Soc* 2005;53:242-8.
10. Monteleoni C, Clark E. Using rapid-cycle quality improvement methodology to reduce feeding tubes in patients with advanced dementia: before and after study. *Br Med J* 2004;329:491-4.
11. Golan I, Ligumsky M, Brezis M. Percutaneous endoscopic gastrostomy in hospitalized incompetent geriatric patients: poorly informed, constrained and paradoxical decisions. *JAMA* 2007;9:839-42.
12. Clarfield AM, Monette J, Bergman H, et al. Enteral feeding in end-stage dementia: a comparison of religious, ethnic, and national differences in Canada and Israel. *J Gerontol A Biol Sci Med Sci* 2006;61:621-7.
13. DiBartolo MC. Careful hand feeding: a reasonable alternative to PEG tube placement in individuals with dementia. *J Gerontol Nurs* 2006;32:25-33; quiz 34-5.

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