

## To Feed or Not to Feed the Terminal Demented Patient – Is There any Question?

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Patients suffering from advanced dementia commonly develop eating difficulties. They may be indifferent to food, resist eating and have difficulty swallowing, which may cause aspiration. Enteral tube feeding is aimed to improve the quality of life by preventing malnutrition and its sequelae, preventing aspiration pneumonia, avoiding or shortening hospitalizations, and improving the functional status of these patients. Unfortunately, there is insufficient evidence in the literature to support this premise. There are no randomized controlled clinical trials comparing tube feeding and oral feeding in severely demented patients since such trials are considered unethical. Yet, many physicians believe that enteral feeding in patients with terminal dementia is futile. Are they wrong?

Finucane and co-authors [1] wrote a “review of the evidence” after searching the Medline for data on tube feeding in patients with advanced dementia. However, this summary of data should be examined critically, since some of the studies included hospitalized acute patients. Rimon et al. [2], Abuksis et al. [3] and Niv et al. [4] all showed that the prognosis for hospitalized patients is worse after insertion of a percutaneous endoscopic gastrostomy, a well-accepted procedure for enteral feeding, compared to elective insertion of PEG in patients whose medical condition is stable. One of the largest population studies of PEG insertion, and the most quoted, is that of Grant and collaborators [5]. This was a cohort study of 81,105 hospitalized patients in whom feeding gastrostomies were inserted. Of these patients, 8668 (10.7%) were demented. When the various diagnoses of the patients were compared, those with dementia had the lowest mortality rate. Since the study included mostly acutely ill patients, their high mortality rate could be attributed to their basic feeble condition and not to the procedure of the PEG insertion.

One of the main arguments against the use of enteral feeding in terminal dementia is that there is no evidence that tube feeding prolongs life. Two retrospective studies are often quoted to support this. Mitchell and team [6] reported patients who were totally dependent on others for eating. Patients who were tube-fed and those who were hand-fed had similar 1 year survival rates of 80%. Their conclusion, therefore, was that “tube feeding did not affect survival in this frail population.” A serious weakness of that study was that they specifically excluded those patients who

were in the most severe category of dementia (those who were unable to eat by mouth even by spoon feeding). In other words, the investigators excluded those most likely to benefit from tube feeds, and most likely to die from starvation if not artificially fed. Another widely quoted paper involved a large population of demented patients with eating and swallowing disorders [7]. The results of that study showed that those patients who were not tube-fed had an 86% 1 year survival rate and that those patients who were tube-fed actually had a 10% higher mortality rate. The cardinal limitation of the study is that it was retrospective, which in itself introduces factors that may make the two study groups not comparable. Moreover, the 86% 1 year survival rate in those who were not tube-fed implies that those patients, in fact, were able to eat despite their swallowing disorders and were therefore different from patients requiring tube feeding. Our experience treating demented patients in several nursing homes in Jerusalem showed that 43% of PEG patients were still alive after 2 years, and 31% 3 years after PEG insertion. These findings are supported by the findings of Peck et al. [8], who showed that the terminal stage of dementia may be prolonged for months or even years if supportive care such as artificial nutrition is provided. In summary, to date, no conclusion can be drawn regarding the benefit or lack of benefit of tube feeding on prolongation of life.

It has also been claimed that PEG tubes cause suffering and result in a more uncomfortable death due to high complication rates and the requirement for restraints [1,9-11]. The high 30 day complication rates in all series of PEG placements are overwhelmingly related to the patient's underlying medical conditions and not to the PEG placement itself. In fact, Larson and associates [12] found that in 314 PEG placements, three deaths were attributable to the procedure itself – one from laryngospasm and two from aspiration. The most common complication following tube insertion is wound infection, but the incidence of this complication has been lowered significantly with prophylactic antibiotic use [13]. The widely quoted concern that tube feeding results in greater use of restraints, and that this, in turn, adds mental suffering to these fragile patients is also doubtful. The source for this assertion is a report by Peck et al. [8]. Careful examination of this report reveals that there was no statistically significant difference in the use of restraints between tube-fed and non-tube-fed patients. Moreover, 78% of those patients who

PEG = percutaneous endoscopic gastrostomy

were given artificial nutrition were fed by nasogastric tube. The reason to restrain a tube-fed patient is to prevent self-extubation. This complication was shown to be much lower for patients fed by PEG than those fed via nasogastric tube [14].

One must admit that “good hand-feeding,” which by all accounts is better than inserting a feeding tube – when still possible – involves a caregiver who devotes much of his or her time to feeding the demented patient. That is not available in all circumstances. However, when good hand-feeding is not available it is probably better to initiate tube feeding early, before the demented patient stops eating totally. The early introduction of tube feeding in this situation would presumably result in fewer complications and better survival [15]. In addition, another benefit of the feeding tube is to supply a route for orally administered medications, some of which are palliative drugs that could ease the patient’s suffering.

All authors who object to tube feeding base their conclusions on uncontrolled non-randomized trials. They claim that those trials show no improvement in the patients’ metabolic state, and thus no reduction in the number and stage of pressure sores. Furthermore, they claim that those trials do not prove that tube feeding lowers the rate of aspirations. Nevertheless, the *mortality rate* of 50% or more at 1 year after PEG insertion as quoted in the “review of the evidence” by Finucane et al. [1] could equally be interpreted as a *survival rate* of as much as 50% one year after feeding-tube insertion. Presenting the raw data as mortality rate rather than survival rate, and thereby ruling out enteral feeding in the terminal demented patient clearly exposes the authors’ bias to quality of life rather than longevity.

Jewish ethics places emphasis on prolongation of life. Kunin [16] summarized a thorough review of the Halakhic (Jewish religious law) approach to feeding a demented patient. The main points presented are that the Halakhic premise is always in favor of treating and promoting life. The exceptions to this rule usually involve persons known to be terminally ill and those who are suffering. Both of these conditions must be met; neither alone is sufficient to withhold treatment. The definition of terminal illness in Halakhic terms is not related to the disease’s natural history but rather considers the prognosis, taking into account all the resources of modern medicine. The value of life of a severely demented patient is no different from that of cognitively intact people. Every portion of life of a human has infinite worth. The life of a 70 year old has exactly the same value as that of a 30 year old, a 1 year old or of a newborn [17].

It has become increasingly acceptable today to judge the life of some of our fellow human beings, such as those with severe dementia and persistent vegetative state, as less worthy of preservation. Rabbi Shlomo Zalman Auerbach a leading rabbinic figure of the 20th century stated: “We have no ability to deter-

mine the preciousness and the importance of any life, even that of a person incapable of performing any useful function” [18].

## References

1. Finucane TE, Christmas C, Travis, K. Tube feeding in patients with advance dementia. A review of the evidence. *JAMA* 1999;282:1365–70.
2. Rimon E, Kagansky N, Levy S. Percutaneous endoscopic gastrostomy; evidence of different prognosis in various patient subgroups. *Age Aging* 200;34:353–7.
3. Abuksis G, Mor M, Segal N, et al. Percutaneous endoscopic gastrostomy: high mortality rates in hospitalized patients. *Am J Gastroenterol* 2000;95:128–32.
4. Niv Y, Abuksis G. Indications for percutaneous endoscopic gastrostomy insertion: ethical aspects. *Dig Dis* 2002;20(3-4):253–6.
5. Grant M, Rudberg M, Brody J. Gastrostomy placement and mortality among hospitalized Medicare beneficiaries. *JAMA* 1998;279:1973–6.
6. Mitchell SL, Kiely DK, Lipsitz LA. The risk factors and impact on survival of feeding tube placement in nursing home residents with severe cognitive impairment. *Arch Intern Med* 1997;157:327–32.
7. Mitchell SL, Kiely DK, Lipsitz, LA. Does artificial enteral nutrition prolong the survival of institutionalized elders with chewing and swallowing problems? *J Gerontol* 1998;53A:M207–13.
8. Peck A, Cohen CE, Mulvihill MN. Long term enteral feeding of aged demented nursing home patients. *J Am Geriatr Soc* 1990;38:1195–8.
9. Gillick MR. Rethinking the role of tube feeding in patients with advanced dementia. *N Engl J Med* 2000;342:206–10.
10. Gillick MR. Artificial nutrition and hydration in the patient with advanced dementia: is withholding treatment compatible with traditional Judaism? *J Med Ethics* 2001;27:12–15.
11. Casarett D, Kapo J, Caplan A. Appropriate use of artificial nutrition and hydration – fundamental principals and recommendations. *N Engl J Med* 2006;353:2607–12.
12. Larson DE, Burton DD, Schroeder KW, et al. Percutaneous endoscopic gastrostomy. *Gastroenterology* 1987;93:48–52.
13. Jain NK, Larson DE, Schroeder KW, et al. Antibiotic prophylaxis for percutaneous endoscopic gastrostomy: a prospective, randomized controlled clinical trial. *Ann Intern Med* 1987;107:824–8.
14. Dwolatzki T, Berezovski R, Friedmann R, et al. A prospective comparison of the use of nasogastric and percutaneous endoscopic gastrostomy tubes for long- term enteral feeding in older people. *Clin Nutr* 2001;20(6):535–40.
15. Loser C, Wolters S, Folsch UR. Enteral long-term nutrition via percutaneous endoscopic gastrostomy (PEG) in 210 patients: a four-year prospective study. *Dig Dis Sci* 1998;43:2549–57.
16. Kunin J. Withholding artificial feeding from the severely demented: merciful or immoral? Contrasts between secular and Jewish perspectives. *J Med Ethics* 2003;29:208–12.
17. Abraham AS. *Nishmat Avraham*. 1st edn. New York: Mesorah Publications, 2003:320.
18. Auerbach SZ. *Minchat Shlomo*. 1st edn. Jerusalem, Shaare Ziv Institute, 1986:557–8.

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