

Nutritional Support in Terminal Patient

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ABSTRACT

Malnutrition is a frequent problem in the situation of terminal illness. The indication of artificial nutritional support in these patients creates ethical conflicts that are difficult to resolve. Palliative care is a type of approach that seeks the humanization and wellbeing of patients with chronic conditions, regardless of the underlying disease. In this sense, seeking the joint participation of a multidisciplinary care team, the patient, and his or her family is the main goal. In patients in this situation, nutrition should be regarded as an approach that is able to provide benefits but that can also bear risks. Therefore, its indication should be subject to a careful and continuous evaluation. Indication for hydration and artificial nutrition (HAN) is based on respect for autonomy, beneficence, non-maleficence, and justice. Nutrition in palliative patients should be addressed in the same ways as other care processes, such as antibiotic therapy or mechanical ventilation. Therefore, HAN should be indicated to improve patient comfort and clinical outcomes, but when HAN results in suffering or discomfort, outweighing its benefits it should be contraindicated or discontinued. This paper suggests lines of action that can serve as clinical guidance, although decision-making must always be individualized, taking into account the balance between risks and benefits of this treatment modality. The patient's wishes must be given top priority.

Keywords: Nutrition, hydration, terminal illness, palliative care

INTRODUCTION

The impossibility of obtaining an acceptable nutritional intake constitutes a poor prognostic factor in the situation of terminal illness and produces a great emotional impact on the patient and his family.

Anorexia and weight loss that appear in the situation of terminal illness usually have a multifactorial origin, where chemical mediators (cytokines) are involved, the presence of other symptoms, side effects of the treatments administered, infections, mechanical, metabolic factors , hormonal, psychological, etc [1].

In the majority of cases, a causal treatment of this problem is not possible, so therapy must be based fundamentally on dietary advice and the use of pharmacological agents (mainly megestrol acetate and corticosteroids) if there is anorexia, in the use of artificial enteral nutrition systems or placement of prostheses ("stents") in cases of dysphagia or intestinal occlusion syndromes, or the use of parenteral nutrition when the digestive tract is useless.

Palliative care can be offered to patients of all age groups with serious and limiting illnesses (for which there is no hope of cure and death may be early) or life-threatening (those for whom curative treatment exists, but it can fail), either acute or chronic [2].

In accordance with international recommendations, this approach should start from diagnosis and be maintained throughout the evolution, in its different phases, and intensify at the end of life (evolution of the disease). It is not just about guaranteeing a dignified death, but also ensuring their quality of life, alleviating their symptoms and offering support to family members throughout the disease process and during the mourning phase [3].

To meet the demands of these patients and their families, interdisciplinary teamwork is essential, and must be coordinated to be clear about the care objectives (symptom management, rehabilitation and quality of life), the limitations caused by the disease, future planning and the values involved in drawing up the advanced care plan (which will guide the therapeutic investment limits considered proportional) [4]. This planning will be individualized and flexible, and must be reviewed according to the evolution of the disease and adjusted to the needs of the patient and their family, with the main focus on comprehensive care and alleviation of suffering.

With technological advances, the different therapeutic options for patients with limiting or life-threatening conditions are vast and, in many cases, the use of these resources implies an increase in life expectancy. However, we must assess the burden that this offer of extended time will place on the patient and his family [2]. Often the proposed support will carry a burden of suffering and pain that makes it impossible for any benefit to be derived from the increased survival time.

The end of life is a moment of intense emotional charge, which will require adequate support, with professionals technically trained in the management of physical, psychological, social

and spiritual symptoms. The literature points to a diversity of physical symptoms in the final phase of life, such as pain, dyspnea, fatigue, seizures, dysphagia, and gastrointestinal symptoms, which negatively impact both the patient and their relatives, which can contribute to a complicated grieving process [5]. When evaluating issues related to palliative care, it is possible to identify that sociocultural and religious values have a great influence on decision making. Health professionals must respect these values and take care of the best interest of the patient, considering the bioethical principles in this care process (autonomy, beneficence, non-maleficence and justice) [6]. However, even respecting family values and the principle of autonomy, sometimes misalignments of objectives and conflicts that will interfere when making decisions will not be avoided. These usually occur due to divergent interpretation of values and therapeutic proportionality, which generates uncertainty as to which is the best option: start, maintain or suspend some treatment or artificial life support [2,7].

A particular case would be that of pediatric palliative care in which parents are involved in the basic care of life for their children. When family members are deprived of oral feeding to their children, and the use of technology and devices is required, such as tubes or gastrostomies, they may experience feelings such as fear, frustration, anxiety and guilt, and the act of administering hydration and nutrition (ANH) sometimes becomes an emotional and stressful source [8].

INDICATIONS FOR HYDRATION AND ARTIFICIAL NUTRITION

There are neurological or tumor diseases that cause difficulty in sucking or chewing and swallowing. The loss of this feeding capacity generates anxiety in patients and the family, since it represents the clinical worsening and the evolution of the disease. We emphasize that, in this transition from the oral route to the use of devices, HNA becomes a medical procedure.

The alternative routes available are not only useful for ANH but will also be useful in the administration of medications. In conditions where gastrostomy is indicated or central venous access is necessary, the medical team must inform the patient, accepting their doubts and concerns, and explaining the risks and benefits of the procedure.

Some diseases will require intravenous HNA support, that is, parenteral nutrition, such as in cases of short bowel syndrome, intestinal obstruction, severe chemotherapy-induced

mucositis, severe malnutrition, and other life-threatening acute diseases (multiple trauma, infections, and severe burns, among others). others) [9,10]. In cases of venous access failure and enteral ANH impossibility, the subcutaneous route may be a hydration option, but it will not provide the necessary nutritional support for basal maintenance for a prolonged period.

CONSIDERATIONS ON NUTRITIONAL THERAPY FOR THE PEDIATRIC PATIENT

When designing the therapeutic plan for the pediatric patient in palliative care, it should be considered that ANH is not free of risks. On the contrary, they are medical interventions instituted after individual assessment and decision-making by the patient [11]. There are many questions about the benefits of maintaining ANH in the terminal phase due to the risk of triggering or worsening symptoms. The literature indicates that dehydration can trigger unpleasant symptoms, such as fatigue, nausea, fever, a sensation of thirst and dry mouth, cognitive impairment, and seizures, secondary to hypernatremia [12]. On the other hand, artificial hydration at the end of life can intensify symptoms and aggravate suffering. The decision to initiate HNA should take into account whether the procedure will provide greater benefits than risks.

If the risks outweigh the benefits, the medical team has the obligation not to indicate it. Children in hospice care are often in passive pain, receive medications that alter taste or are anorexic, and are at risk of depression and gastrointestinal disorders [13]. In children who can receive diet or oral hydration, care should be taken about the risk of aspiration, and an evaluation of speech and language is recommended if any degree of swallowing disorder is suspected. In this scenario, the indication of nutritional therapy is capable of reducing the risk of choking, aspiration, vomiting, and dyspnea. From the perspective of the family, the initiation of the HNA provides a sense of security, in the sense of guaranteeing that malnutrition will not accelerate the process of death and dying [14]. The decision to start HNA must be individualized and, once the patient is indicated with proportional care, it must be reviewed frequently, since when the procedure causes a situation of constant discomfort and suffering, the discussion of whether to continue or interrupt becomes relevant. Depending on the progression of the disease, if ANH begins to offer more pain than good, it should be stopped. The decision to be made should always involve not only the care team, but also the patient's family. If the decision is made

to suspend the HNA, all other palliative care fronts must be maintained [15]. ANH can be performed by nasogastric or nasojejunal tube, gastrostomy, intravenous, or hypodermic. The choice of route follows the traditional sequence, that is, the preferential oral route, whenever possible, enteral route, as a second option, followed by intravenous or hypodermic. The use of the digestive route should always be preferred, since the parenteral routes are more invasive. As the underlying disease progresses and the child loses autonomy, the risks of ANH begin to increase, to the point that the benefits are not offset. In end-of-life situations in which the team considers it necessary to maintain the HNA, either due to the condition of minimizing symptoms or at the request of the family, a reduced water supply is recommended, around 25% to 50% of the basal needs [16,17].

The classic indication for nutritional therapy begins when the child cannot reach 60-80% of the total energy value (TEV) for 10 consecutive days [18-20]. In the case of deciding not to start HNA, or to interrupt it, this act should not be seen as a prohibition to feed the patient; on the contrary, the concept of comfortable eating should be taken into account, since the principle is always to offer relief and comfort [21-24].

DISCUSSION

The Spanish Society for Palliative Care defines a terminally ill person as someone with a life expectancy of less than six months and in which other factors also concur [25]:

- Existence of an advanced, progressive and incurable disease.
- Reasonable lack of response to specific treatment.
- Appearance of intense, multiple, multifactorial and changing symptoms.
- Great emotional impact on the patient, the family and even on the therapeutic team, closely related, whether explicitly or not, with the presence of death.

Nutrition and hydration, in these cases, are part of the basic or minimum humanitarian care, never disproportionate and, as such, must be applied. The principle of proportionality says that a medical treatment is ethically obligatory to the extent that it provides more benefits than burdens to the patient. Here it is necessary to determine when nutrition may be a disproportionate measure and, therefore, susceptible to withdrawal or non-introduction.

One controversy is constituted by measures such as artificial nutrition and hydration. Are these measures medical treatment or basic care? Some authors think that artificial nutrition and hydration are not comparable to other medical treatments and, according to this point of view, although certain treatments can be suppressed or not established, artificial hydration and nutrition should always be established [26].

It is assumed that no one can be denied food or drink and from this it can be deduced, without further ado, its elemental nature of care and, therefore, obligatory, in any case. But this presumption is far from being correct and doing without liquids and food does not always contribute to increasing suffering, quite the contrary [27].

For this reason, others appeal to the symbolic value of these measures and think that artificial nutrition and hydration do not have significant differences with other life support techniques [27]. They consider that these are medical procedures subject to the same criteria as the rest, so that sometimes they can be unjustifiably harmful.

Parenteral nutrition, in the situation of terminal disease, when any treatment with curative purpose has been ruled out, should be used very exceptionally and always with the consent of the well-informed patient, since it constitutes an aggressive technique that greatly limits the autonomy of the patient. sick and is subject to a multitude of complications, mainly of an infectious, metabolic type and those derived from the placement of a central line catheter. However, in some cases of intestinal obstruction, when a relatively long life expectancy is estimated, parenteral nutrition could improve the patient's condition and is therefore exceptionally indicated [28].

If it has finally been decided to establish an artificial nutrition system in a situation of terminal illness, two new causes of ethical conflict may appear:

- When considering the possibility of withdrawing it when it has been shown to be ineffective or when the disease inevitably progresses towards death despite its application.
- When it is necessary to use physical restraint devices or pharmacological sedation to avoid self-extubation, a situation that occurs relatively frequently in the case of significant cognitive impairment (dementia or delirium), where, obviously, the ethical principle of autonomy cannot be applied.

With respect to the first assumption, from an ethical point of view, not starting a treatment has the same value as interrupting it when it is no longer considered necessary or useful.

When the second assumption occurs, in the situation of terminal illness, it should be clear that the disadvantages of artificial nutritional support outweigh the benefits, especially if we take into account that physical restraint, or more clearly, violates the basic foundations of humanitarian care. and the dignity of the person. These measures should only be used when feeding through a nasogastric tube is essential to sustain life during an acute and reversible disease, not for such support in cases of irreversible conditions and with no chance of recovery from the disease or the achievement of independence. Food [29].

The bioethical dilemmas that may arise around artificial nutrition in terminally ill patients should not focus on the quality or quantity of nutrients, but on their indication and efficacy and the appropriate decisions on the use of them. any form of life support, including nutrition and hydration, requires prudent reflection on the part of the multidisciplinary team and the bioethics committee of our hospitals.

Núñez Olarte [25] distinguishes three phases of disease:

1. The curative, in which you have to attend to survival and in which hydration and nutrition would be mandatory.
2. Palliative care in which the remaining quality of life of the patient prevails, and in which hydration and nutrition are possible, but depending on this quality of life.
3. The agony, in which the quality of death must be taken into account and where nutrition and hydration would be contraindicated.

The question that must be answered before establishing or suppressing nutrition, whether enteral or parenteral, is whether there is a balance between the benefits that are expected to be obtained and the risks, discomforts, and side effects that are caused to the patient. According to Azucena Couceiro [30], as a general rule, parenteral nutrition should rarely be administered to the terminally ill patient, since the suppression of nutrition is not what will cause the death of the patient, but rather there is an underlying disease that acts as the determining cause. so that the patient does not die because he does not eat, but does not eat because he is dying.

PATIENTS WHO CAN BENEFIT FROM ARTIFICIAL NUTRITION

Some terminally ill patients, but with a reasonable functional status, may benefit from artificial nutrition and hydration for a few months, as occurs in those cases in which there are temporary or localized conditions that lead to inability to eat, such as painful oral ulcers, stricture of the esophagus due to radiation or head and neck cancers. In some of these patients, there may be an improvement in the symptoms derived from cachexia and sarcopenia [31].

PATIENTS WHO DO NOT BENEFIT FROM ARTIFICIAL NUTRITION

The implementation of artificial nutrition and hydration is not without risk and can have a negative impact on the quality of life of our patients. Parenteral nutrition devices become constant accessories that limit daily activities.

Physiologic complications of enteral and parenteral nutrition include fluid and metabolic disturbances such as electrolyte imbalance and refeeding syndrome, as well as third space or volume overload problems, as well as those problems with the central venous access device that require center visits, hospitable.

As metabolism slows and gastrointestinal absorption decreases late in life, secretions and regurgitations are exacerbated by artificial nutrition. Aspiration remains a major cause of death despite the nasogastric tube [32].

In general, the rate of complications specifically associated with enteral nutrition is estimated to be low, at 0.4% per year [33]. The rate includes anatomic complications related to tube placement and mechanical complications related to tube function. However, higher complication rates have been documented in subcategories of patients. For example, one study found a complication rate of 17.5% among patients with a mean age of 75 years and primary diagnoses of cerebrovascular disease or dementia [34]. These complications included pneumonia, acute enterocolitis, paralytic ileus, and cholangitis. When specifically studying percutaneous endoscopic gastrostomy (PEG) in cancer patients, 9% experienced a major complication such as pneumonia or hypoxia [35]. A major complication of PEG placement increases the risk of 30-day mortality.

Studies have shown that PN complication rates are higher in patients with advanced cancers [36]. In patients with advanced

dementia, 55% of pneumonia associated with this type of nutrition has been found, as well as a 3-month mortality rate of 15% [13]. Patients with chronic obstructive pulmonary disease (COPD), congestive heart failure, and end-stage liver disease, not severe dementia, have not seen benefits with artificial nutrition [37,38].

CONCLUSIONS

Certain patients with reasonable functional status may benefit from artificial nutrition at the end of life, such as in some patients with advanced cancer, while it is contraindicated in most patients with advanced dementia. However, the recommendation to start or continue artificial nutrition needs to be individualized regardless of the diagnosis of terminal illness.

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