To Give or Not to Give Fluids, Artificially: That Is an Ethical Dilemma!

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Abstract

Eating and drinking are essential for life. There are clinical situations that artificial hydration is necessary. For dying patients artificial hydration looks useless and in many conditions could even be harmful (e.g. pulmonary edema in hypoalbuminemic patients). In our medical culture artificial hydration is a symbol of care to the patient and withholding it, is a very emotive issue, especially to the family. Attention to autonomy, explanation about advantages and disadvantages of artificial hydration to the family and reassure them that the patient will be looked after and kept comfortable till the last seconds might be the solution of this ethical dilemma.

Keywords: artificial hydration, medical ethics, ethical dilemma, dying patient

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Introduction

Ms Ahmadi was a 27 years old lady with advanced adenoid cystic carcinoma with widespread bony and brain metastasis who had received palliative radiotherapy. For the last time, she was admitted for symptom control and terminal care. She was confused and in pain. For treating any correctable abnormalities such as hypercalcaemia a complete blood tests was requested but nothing was found. She was really dying. The pain was properly controlled by subcutaneous injection of morphine regularly and after four days she passed away in peace and calm. The major challenge with the nursing staff, during her terminal care and even after that was; "why artificial hydration was not started for her?"

What is the definition of dehydration? Babylon's says: abnormal lack of water in the body due to insufficient intake of liquids or extreme loss of fluids by sweating or vomiting or due to diarrhea. In dying patients desire for drinking decreases and studies shows artificial hydration has no effect on survival or symptom control [1]. There is no powerful evidence that recommend the routine use of artificial hydration for terminally ill patients with cancer [2].There are two studies that revealed dehydrated dying patients survived longer than those who received fluids [3].

Evidence suggests some advantages of cancer dehydration such as:

- Decreasing severity of pain maybe by releasing of dynorphine by the hypothalamus when fluid depletion occurs
- Decreasing pharyngeal secretions
- Decreasing nausea and vomiting and the need for a nasogastric tube
- Decreasing peripheral oedema and also urinary output, which reduce the need to catheterization or move the patient for wetting the bed and cause discomfort [3,4].

At the end-of-life journey it looks a dying body can't manage fluids. There would be a multi organ failure; cardiac output reduces and artificial hydration only worsens peripheral and pulmonary edema, ascites, pleural effusion…while kidneys couldn't manage this volume overloaded [3]. Besides artificial hydration has no clear beneficial effect on normalizing BUN/ Creatinine, Sodium, or Potassium [5].

The most common symptoms in the dying are dry mouth and thirst that may frequently be caused by medication, mouth breathing, oxygen therapy, radiation therapy and infection [1, 6, 7]. There is insufficient evidence that dry mouth is not caused by dehydration and also artificial hydration therapy is unlikely to alleviate the sensation of thirst in terminally ill patients with cancer [4, 8]. Good mouth care and reassessment of medication are the most appropriate interventions. There is no doubt that every patient should be clinically assessed and the

appropriateness of artificial hydration should be judged on day-to-day basis [9].

Allowing patients to die with or without artificial fluids at the terminal stage can cause ethical dilemmas in hospitals. Many of us often make a horrible picture of dehydration: a dried mouth, skeletal victim like a passenger that lost in a desert!

But the physiology of the living differs from the physiology of dying. Many nurses fear reactions of families and we should be aware of the psychological burden on them. Eating and drinking are important opportunities for human contact and for this reason at the end of life refusing them by patients make an emotional complex for their families. Clinicians should clarify the patient's goals and balancing these goals with medical realities of the situation. Assess the advantages and disadvantages of artificial hydration therapy based on patient's history, physical examination, prognosis and ethical issues [10]. Especially for end-stage patients clinicians should decide on treatment plan after discussion with patients and families.

The World health Organization defined palliative care as: an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychological and spiritual [11]. Based on this definition to improve quality of life is the most important task for health workers who look after these patients. Before prescribing any medication or intervention such as artificial hydration we should ask: what are the overall effects of our interventions (e.g. hydration) on the patient? Does the patient feel better after the intervention? Does it prolong the patient's survival? Does it have any economical burden on patient or his family?

The basic principle of medical ethics- autonomy, beneficence, non-maleficence and justice- should be respected in every medical action [12]. We, physicians, usually act as if our patients have to follow our orders. But, that is not true and every patient has the right to accept or reject suggested medical treatment. The integration of palliative care into healthcare system besides caring of patients who are not curable now is the rationalization of resources [13]. In palliative care we try to avoid all futile treatments, irrelevant tests and other interventions such as artificial hydration or total parentral nutrition for end of life stage. Avoiding the use of futile treatment means: reducing costs by avoiding the admission of patients in hospitals for artificial hydration inappropriately and releasing beds to other patients. Therefore, palliative care would have an influence much broader than originally defined and could increase the effectiveness and the equity of the healthcare system as a whole.

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