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Palliative Care and Prehospital Emergency Medicine

Analysis of a Case Series

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Abstract: Palliative care, which is intended to keep patients at home as long as possible, is increasingly proposed for patients who live at home, with their family, or in retirement homes. Although their condition is expected to have a lethal evolution, the patients—or more often their families or entourages—are sometimes confronted with sudden situations of respiratory distress, convulsions, hemorrhage, coma, anxiety, or pain. Prehospital emergency services are therefore often confronted with palliative care situations, situations in which medical teams are not skilled and therefore frequently feel awkward.

We conducted a retrospective study about cases of palliative care situations that were managed by prehospital emergency physicians (EPs) over a period of 8 months in 2012, in the urban region of Lausanne in the State of Vaud, Switzerland.

The prehospital EPs managed 1586 prehospital emergencies during the study period. We report 4 situations of respiratory distress or neurological disorders in advanced cancer patients, highlighting end-of-life and palliative care situations that may be encountered by prehospital emergency services.

The similarity of the cases, the reasons leading to the involvement of prehospital EPs, and the ethical dilemma illustrated by these situations are discussed. These situations highlight the need for more formal education in palliative care for EPs and prehospital emergency teams, and the need to fully communicate the planning and implementation of palliative care with patients and patients' family members.

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Abbreviations: EMS = emergency medical services, EP = emergency physician, GCS = Glasgow Coma Scale, GP = general practitioner.

INTRODUCTION

Like the populations of other occidental countries, the western European population is gradually aging. This evolution is particularly noticeable among prehospital emergency patients.[1] Along with this evolution, the comorbidities of elderly patients are increasing, predominantly related to cardiovascular diseases, oncologic pathologies, or dementia. Many of these patients benefit from high-level and costly treatments throughout their lives, particularly at the final stage of their illness.[2,3] Most of these treatments are prescribed as ''home treatments'' to keep the patients at home as long as possible. This strategy is in accordance with the desire expressed by most patients to spend the last part of their lives at home and is reinforced by political and economic strategies intended to develop ambulatory care and home treatments.

In this context, palliative care, intended to keep patients at home as long as possible, is increasingly proposed for ambulatory patients who live at home, with their family, or in retirement homes, through ambulatory palliative networks. Although their condition is expected to have a lethal evolution, the patients—or more often their families or entourages—are sometimes confronted with situations of respiratory distress, convulsions, coma, anxiety, or pain. In these situations, the patients or their families feel helpless and overwhelmed, and they seek external assistance through the ambulatory palliative network, when possible and appropriate, or through on-call medical assistance.[4] At the same time, the evolution of the demographics and organization of the medical profession has reduced the number of primary care physicians, and their on-call availability—though variable—is decreasing globally.

Prehospital emergency services are therefore more often confronted with palliative situations, situations in which medical teams are not specifically trained and therefore frequently feel awkward.[5] The management of these situations is complex and requires time to understand the situation, to evaluate the therapeutic options, to seek the wishes of the patients, to follow the advance directives concerning medical care in case of emergency, and to offer palliative care with empathy and respect for ethical principles. Time may be difficult to offer, for emergency teams who can potentially be called to another emergency situation at any moment. The risk of not respecting the wishes of the patient and of aggressive and futile therapy is considerable, and specific treatments, such as analgesia, sedation, or anxiolysis, are not necessarily well mastered in these palliative situations.[2]

METHODS

This is a series of 4 consecutive cases of palliative care situations that were managed by prehospital emergency physicians (EPs) over a period of 8 months in 2012, in the urban region of Lausanne in the State of Vaud. The demographic evolution of patients is characterized by a major increase in elderly and polymorbid patients, along with a strategy to offer ambulatory and home treatments, including palliative care for severe terminal situations. The region is both urban and rural, with a dense and well-organized at-home nursing system and a regionalized on-call primary care physician consultation system. For emergency situations, a unique centralized dispatch

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center coordinates a 2-tier prehospital emergency system, using a specific keyword-based dispatch protocol. Ambulances with paramedics are the primary response of emergency medical services (EMS). EPs may be sent on the basis of the keywords or by request of the paramedics on-site. The prehospital EPs managed 1586 prehospital emergencies during the study period. All cases were retrospectively reviewed by a supervisor, for training purposes and quality control, and patient data were anonymized in an electronic database. The study was approved by the Lausanne University Ethics Commission for human research.

RESULTS/CASE DESCRIPTION

Case 1

At 11:05 PM, the prehospital EP was required by paramedics for a 61-year-old woman presenting with severe respiratory distress and coma (Glasgow Coma Scale [GCS] 3/15) at home, in the context of hypoxemia (oxygen saturation [SpO_2] 74%) secondary to massive pulmonary aspiration. The patient had late-stage metastatic pancreatic carcinoma. According to the wishes of the patient, the initial plan was to maintain home care until death. Faced with the patient's respiratory distress and sudden loss of consciousness, the family was no longer able to provide care and required transport of the patient to the hospital. The treating general practitioner (GP) had adjusted the opioid treatment 2 hours earlier, but was temporarily unavailable. A nurse from the palliative network was called, but could not come immediately. After evaluation of the situation and discussion with the GP, the first proposition of the prehospital EP was to increase the analgesic treatment, along with sedation, and to leave the patient at home. The family, especially the patient's husband, a retired physician, rejected the proposition and the patient was finally transferred to the referral hospital. She died in the emergency department 90 minutes after her admission in the presence of family members, who were grateful for the transfer.

Case 2

At 01:12 PM, paramedics required an EP at the home of a 48-year-old patient, who presented with severe respiratory distress (SpO_2 76%) in the context of a multimetastatic pulmonary carcinoma. The advance directives concerning the medical care of the patient clearly indicated at-home palliative care, with prescription of long- and short-acting opioids, oxygen, corticosteroids, anti-emetics, and sedatives. Despite treatment, the situation was not manageable and ambulatory care could not maintain the patient at home. The situation occurred during the summer holidays. The patient benefited from high-flow oxygen and opioids and was transferred to the emergency department of the hospital. He died the following night in the general ward.

Case 3

At 05:31 AM, paramedics and an EP responded to a call from the stepdaughter of a 92-year-old ambulatory patient, who was being treated for a multimetastatic pulmonary carcinoma (pleural, adrenal, bone), with oxygen and morphine at home. The patient described ill-defined moderate chest pain and shortness of breath. SpO_2 was 80% and pulmonary auscultation was compatible with a large right pleural effusion with complete atelectasis of the right lung. The patient's GP could not be reached by phone. Analgesia was obtained with titration of opioid, and oxygen was slightly increased for comfort. The patient reaffirmed his wish to stay at home. In coordination with the family and with home nursing care, the patient was left at home. He died at home 2 days later, peacefully, his family around him.

Case 4

An ambulance and an EP were required for a 54-year-old woman, who presented with severe respiratory distress at home in the context of advanced multimetastatic breast carcinoma and major anxious reaction. SpO_2 was 90% in ambient air, with respiratory frequency of 40 breaths/min. Auscultation evoked bilateral pleural effusions. The patient had no palliative support. She was visiting a friend, and had been at his home for 2 weeks. She adamantly declined hospitalization. The patient benefited from reassurance and anxiolysis with a benzodiazepine. The EP organized home nursing care, ambulatory palliative care, and medical care with the GP of the patient's friend. The patient was left at home. She was transported to the emergency department 1 week later in the context of acute respiratory distress and was admitted to the palliative care service. She died 3 weeks later.

DISCUSSION

Palliative care is defined by the World Health Organization as an approach that improves the quality of life of the patients and their families facing problems associated with life-threatening illness. This is accomplished through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial, and spiritual.[6] The cases in the present study highlight end-of-life situations involving palliative care that may be encountered by prehospital EMS. The situations have similar features: they appeared predominantly at night, during holidays, or during the absence of the treating GP or nurse; they involved the patient and his or her immediate family when the patient's condition suddenly worsened; and they almost exclusively concerned pulmonary or neurological symptoms in the context of oncologic pathologies. These key elements are similar to those observed in previous studies.[7–9] These are situations in which the network of care usually available to the patient is temporarily weaker and when there is suddenly a greater need—situations with a combination of different forms of vulnerability.[10] The lack of resources as a trigger for the emergency call clearly illustrates the fragility of these situations. It emphasizes the importance of planning redundancies and safety nets in preparing end-of-life situations and the challenges of decisions to keep a patient at home in such situations and to avoid unnecessary transfer to hospital. Respiratory distress or neurological disorders (coma or convulsions) is the main reason for emergency calls in palliative care situations.[5,6,11] These symptoms are common reasons for emergency calls rather than being specific to end-of-life situations. In the context of palliative care, they are of particular significance and should elicit an appropriate response.[9]

On arrival at the patient's home, the understanding of the situation, the evaluation of the patient, and the discussion of the therapeutic alternatives are time-consuming for the prehospital caregivers. They require empathy, medical knowledge, and a good understanding of the health care network and of patients' rights. The prehospital emergency technicians and paramedics may feel uncomfortable because management of end-of-life situations with ''do not resuscitate patients'' requires them to rethink their routines extensively, their presumed role as

emergency caregivers in these situations is often unclear, and because they lack access to the medical charts of patients either directly or through the treating physicians. The underlying uncertainty of being called at any time for another emergency situation interferes with potentially lengthy deliberation. In a 2-tier prehospital emergency system with EPs, the intervention of EPs may promote evaluation of the patient and the decision-making process and may therefore foster respectful and adequate care.

Ethical aspects of these cases are challenging. Respecting patients' self-determination is important, but the difficulty of these situations is often unexpected and leaves little time for patients to assess their options or for health care professionals to evaluate patients' decision-making capacity. Advance directives are often legally limited to the situations that these documents describe: applying them in unexpected situations thus goes beyond their legal scope. Nonetheless, applying advance directives in a situation that they do not describe is often possible and legitimate.[12] This is, however, ethically difficult, as it requires interpretation of the values expressed by the patient, as well as an evaluation of the patient's best interest, which ought to reflect as much as possible the way he or she would have viewed it. This evaluation, too, must be conducted under severe time constraints and with little prior knowledge of who the patient is. Emergency situations sometimes also illustrate one of the limits of respect for patients' self-determination. Autonomy as an ethical value is strongest when it represents a right to noninterference: the freedom to do as the individual wishes and to remain unhindered in this and free from impositions from others, as long as the individual does not harm others.[13] This does not imply a right to require that nonexistent resources be implemented in the patient's care, however. Situations in which outpatient resources become insufficient for home care to be maintained represent such limits to the health system's ability to respect patient choices. When patients and their next of kin are not aware that such situations can and do arise, they face greater difficulties, as do health care professionals.

Most EPs and paramedics express lack of knowledge and competencies about palliative care and report an interest in further training in palliative care medicine.[3] This aspect should now be part of the curriculum of EPs, along with more specific and applied training in the ethical aspects of such situations.[14] Integrating palliative care in prehospital EMS requires formal education and training about ethical and practical aspects of advanced care plans, palliative care strategies, pain management, care of the imminently dying patient, death notification and death announcement to the family, religious aspects of death and dying, and withholding of life-prolonging interventions.

Coordination with a palliative care network is crucial for assisting the prehospital emergency teams in their decisions and treatment options and for proposing ambulatory palliative care for the patient. At the same time, easier access to medical information and to advanced care planning documentation is essential to guarantee respect for the patient's decision and to avoid unnecessary admission to emergency services.

Finally, the possibility of such emergency situations with their attendant' difficulties should be more systematically included in discussions regarding advance care planning with patients nearing the end of life.[15] The risk of unplanned admission to the emergency department, with a noticeable probability of death during the transport or in the hours after admission, should be clearly mentioned.[16]

Palliative care and prehospital emergency medical care are not opposing strategies in the evolution of palliative care patients; on the contrary, they may be considered complementary and potentially successive strategies. The situations presented here highlight the need for more formal education about palliative care for EPs and prehospital emergency teams and make the case for improving collaboration between palliative care networks and EMS.

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