COMMENTARY

Terminal Extubation or Terminal Weaning: Is it Feasible in Indian Intensive Care Units?

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Abstract

Terminal extubation (TE) and weaning have long been suggested as a modality of intervention when the continuation of mechanical ventilation is not expected to achieve its therapeutic aim and is merely prolonging the dying process. The decision, however, is complex considering limited evidence regarding the best practices and is often defied due to inherent ethical, legal, and medical dilemmas. The article attempts a brief overview of available literature on this subject and discusses its feasibility in Indian intensive care units (ICUs).

Keywords: End-of-life care, Terminal weaning, Terminal extubation.

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Highlights

Terminal extubation (TE) and terminal weaning (TW) are well-recognized practices of withdrawal in palliative care and end-of-life care. The practice, however, is decried due to medicolegal and ethical dilemmas. The article attempts a brief overview of the available literature and assesses the feasibility of these practices in Indian intensive care units (ICUs).

Introduction

The end-of-life decisions in an intensive care setting, continue to be widely debated for their legal and ethical ramifications. The practices vary, based upon the state legislations, and professional regulatory guidelines, and are often guided by the local hospital policy, physicians, and family preferences. The "foregoing of life support treatment" (FLST) is mostly offered with an understanding that the patient will eventually die from the underlying condition.

Terminal extubation and TW are well-recognized practices of withdrawal in palliative care and end-of-life care.[1] These modalities are contemplated when mechanical ventilation is merely prolonging the dying process and its discontinuation simply allows nature to take its own course.

The practice of TE entails the removal of the endotracheal tube and discontinuation of mechanical ventilation to limit the prolonged suffering of the patient. Terminal weaning involves a reduction in tidal volumes, oxygen support, and positive end-expiratory pressure (PEEP) without the removal of the artificial airway.[2,3] The patient may then continue to be maintained on minimal ventilation or placed on a t-piece with ongoing symptom-based care, eventually resulting in the demise of the patient.

The Intensivists Perspective

Despite the general acknowledgment of FLST modalities in oncology services, TE and TW have found limited acceptance in nononcology ICUs. The decision is complex and often defied due to inherent ethical, legal, and medical dilemmas. A decade-old survey conducted across French ICUs revealed a preference for TW among two-fifth of the participating nurses and physicians.[4]

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A recent survey regarding the practical aspects of end-of-life care, conducted across the Indian ICUs revealed that TW is practiced by 38% of the respondents whereas TE was offered by a mere 18%.[5]

As per the available literature, the intensivists consider these practices as emotionally distressing and show reluctance, being fearful of the fact that TE will result in sudden or acute demise.[6] Plain speaking, even the proponents of "good death," perceive these as unethical and often equate these to physician-assisted euthanasia. A greater acceptance of TW is probably due to a lesser moral burden on the physician and family as it is considered less intrusive than TE.[7] Terminal extubation in an alert patient presents another gamut of psychosocial, ethical, legal, and procedural considerations.[6]

The Patient and their Family's Perspective

The reluctance to de-escalate/discontinue mechanical ventilation results in the patient being condemned on life support, despite a

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general acceptance that a good outcome is unlikely and the patient will eventually die despite the medical interventions. The families are thus left unsupported and forced to opt for a leave/discharge against medical advice. The respiratory support is then withdrawn *en route* or at home which is distressful both for the dying patient and the attending family members.

Discussion

The available literature on the subject of TE and TW is contentious. There is available evidence that suggests complicated grief and lower satisfaction among the family members where the patient died while intubated.[8,9] A recent systemic review by Efstathiou Nikolaos et al., on the available literature on terminal withdrawal of mechanical ventilation identified a wide variation in the clinicians' practices and perceptions among countries and within countries.[10] Thellier et al., while comparing TE and TW, reported improved satisfaction among the family members who opted for TE as they were present at the time of death of the loved one.[3]

A prospective observational multicentre study (ARREVE) was conducted across 43 French ICUs to assess the relative merits of TE vs TW from the perspective of patients and relatives. As per their findings, there was no difference in the psychological welfare of the relatives between the two groups. The patients who underwent TE were, however, noted to have more airway obstructions and gasps with immediate extubation, thus a suggestion was given towards a scope for refinement in palliation services. Immediate extubation on the contrary was documented to be associated with lesser job strain on ICU staff.[11] Pragmatically speaking, TW has also been critiqued for prolonging the dying process and contributing to patient distress.[2] The experience of the survivors of critical illness as to discomfort associated with endotracheal tubes and suctioning can be argued in favor of the removal of artificial airways.[12]

The dilemma leaves us with an unanswered question as to whether we can practice these modalities within the ambit of the existing legal framework or we must persist with a blanket refusal for the withdrawal of mechanical ventilation.

An essential component of this understanding is the fact that the purpose of both TW and/or TE is to honor and respect the patient or authorized surrogate's decision that the mechanical ventilation must be withdrawn in the best interest of the patient as it may not be able to achieve its therapeutic goal.[13] An explanation to the family that opting for TE/TW is "only with respect to limiting the life-sustaining treatments," will help them make a pragmatic decision.

The proponents of TE and TW opine that, if we can accede to honor the family's request to de-escalate inotropes or not to institute any further organ support (e.g., renal support), mechanical ventilation can also be withdrawn or de-escalated as this too is merely a support for the respiratory system.

Even from the perspective of medical ethics, an appropriate intervention is to start or continue a treatment whose benefit outweighs the risk or burden. It also implies that the treatment, which may be considered medically inappropriate, must be withheld or withdrawn. The withdrawals, while being difficult for the treating team, are more acceptable for the families, who have witnessed that the life support interventions haven't delivered the desired positive outcome.[14]

The key to such a decision is effective communication. These conversations undoubtedly mandate reasonable knowledge and expertise and a consensus among all the stakeholders regarding the establishment of the terminal nature of the illness. The withdrawal must only be applied if the proposed comfort care pathway is well understood and accepted by all the members of the treating team and family. The rationale for change in the goals of treatment from cure to care along with the reassurances about the patient's comfort, helps the family to decide on the best interest of the patient and avoids the inherent guilt associated with such decisions. Seeking the opinion of the hospital primary medical board and secondary medical board in compliance with the Supreme Court ruling will safeguard the physician from any subsequent legal liability.[15] The conversations must also include the details of what is expected in the aftermath of such a decision, along with grief and bereavement support. A pre-emptive plan for symptom relief until death, needs to be discussed and documented as a part of the care plan. The presence of a senior member of the ICU team especially during the planned extubation (TE) has been found to be comforting for the ICU team and the family members.[13]

Conclusion

Terminal weaning and TE are ethical and clinically acceptable choices when chosen appropriately while prioritizing the best interests of a terminally ill patient. The ailing patient and their families may be offered either of these options without any preferential bias, with an understanding that death would be an inevitable outcome of the underlying pathological process.

The entire procedure requires collaborative decision-making which includes detailed family counseling, legally apt documentation, formalized institutional protocols and guidelines, symptom support to the dying patient, along emotional and bereavement support to the family members.

Future Directions

At this conjecture, discontinuation of mechanical ventilation may still be adopted by a limited number of intensivists but TW may find more supporters. There is an impending need for the constitution of the primary hospital medical board in every hospital to safeguard the interests of both the physicians involved and the family members. A discussion about TW and TE must also be included when an advanced directive is being prepared and also as a part of advanced care planning. A prospective survey on TE and TW practices in multiple centers across India is warranted.

The medicalization of death needs to be countered and the pedagogy of dying needs to be advocated to preserve the dignity of dying patients.

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