Hydrotherapy in critically ill ventilated patients: a mixed-methods study.

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Introduction

• Physical therapy has an important role in early mobilization practice for critically ill ventilated patients.
• Hydrotherapy (HT) appears to be a safe and feasible early mobilization intervention in ventilated ICU patients.¹
• More insight in the functional recovery process is needed to evaluate this new intervention.
• Based on patient experience we want to explore the mental and psychological effects of HT.

Aim

To report the recovery process and patient experiences of critically ill ventilated patients treated with hydrotherapy.

Methods

• Retrospective observational mixed methods design.
• Inclusion criteria: dependent of mechanical ventilation during first HT session, expected duration of mechanical ventilation > 7 days, hemodynamic and neurological stable, age ≥ 18, sufficient level of cooperation assessed with the Score of 5 Questions (S5Q) ≥ 4.
• Data were collected at T0 (inclusion), T1 (2 weeks), T2 (4 weeks), T3 (6 weeks) and T4 (12 weeks).
• Semi-structured interviews were conducted at T4.
• Functional and cognitive outcome measures were presented using descriptive statistics, Interviews were analyzed following the phenomenological approach.

Results

• Between January and April 2015 eleven patients were enrolled.
• A total of 55 HT sessions were conducted with a median of 3.0 [3.0-8.0] sessions per person.
• The DEMMI and other functional outcome measures showed a recovering tendency (figure 1).
• Analysis of 7 qualitative interviews resulted in five main themes: experiencing the consequences of critical illness, feeling safe in the water, being able to move, experiencing a turning point, special appreciation towards HT.

Figure 1: DEMMI score over time per patient.

Discussion

• To investigate the effect of HT a controlled intervention study should be designed.
• Future studies should evaluate cost effectiveness of HT, because it is a time consuming and labor intensive therapy demanding a high-tech pool with high structural costs.
• Findings from this study are a large encouragement to continue providing hydrotherapy to critically ill ventilated patients.
• Monitoring outcomes can provide insight which patients benefit most from HT treatment.
• HT might be particularly indicated in patients who lack belief in recovery and patients showing low self-efficacy.

Conclusion

This study presents the recovery process of eleven critically ill ventilated patients treated with HT, the content of the treatment sessions and the way they experienced this new therapy modality. HT is highly appreciated by patients and seems to have a positive effect on the psychological and mental recovery from critical illness.


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