

Awareness of the risks of using electric wheelchairs which carry respirators

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Abstract

We examined the awareness of patients and nurses of risks of using electric wheelchairs which carry respirators. The nurses were concerned and were aware of risk about all items. The patients felt uneasiness and knew about risks, but their desire for independent action was strong. About the use of electric wheelchairs which carry respirators, the prior explanation of the nurse had deficiency. A manual with which healthcare workers can give consistent guidance is necessary.

Keywords: Duchenne muscular dystrophy, patients, nurse, uneasiness, explanation of the field of activities, awareness of risk, manual

Introduction

For Duchenne muscular dystrophy patients, respiratory care has been provided positively since the late 1980s. As a result, the life of these patients has been extended remarkably. Noninvasive intermittent positive pressure ventilation therapy (NIPPV) has been introduced in Tokushima National Hospital. The use of electric wheelchairs which carry respirators began in the latter half of the 1990s for the quality of life improvement of patients who used NIPPV. For security, the range in which they can move freely and alone with an electric wheelchair is limited. When the patients move outside of the set field of activities, a healthcare worker attends in all cases. However, the patients may be witnessed out of the range. We wrestled with this study to determine how aware patients and nurses were of the risks of the respirator.

Subjects and methods

The subjects included 22 patients who had been admitted to the muscular dystrophy ward of Tokushima National Hospital and used electric wheelchairs which carried electric respirators, and 64 nurses who worked in a muscular dystrophy ward. The patients were 2-16 years at 19-46 years old in a respirator deployment electric wheelchair ride career. The use history of an electric wheelchair with a respirator was 2 through 16.

The years of experience of the nurses were from five months to 35 years. The period that they had worked in a muscular dystrophy ward ranged from five months to 18 years. The questionnaire mentioned items associated with [explanation of the field of activities] [uneasiness] [awareness to risk], and was original. The investigation period was from August 1, 2010 to October 5, 2010. The study obtained approval from the Tokushima National Hospital Ethical Review Board.

Results and discussion

For the 22 study patients, the collection rate of the questionnaire was 100%, and the effective response rate was 72.72%. For the 64 study nurses, the collection rate of the questionnaire was 89.06%, and the effective response rate was 100%. The nurse is felt to be so far ever since they made the patients use electric wheelchairs which carry respirators. They feel uneasiness in all troubles and act while thinking about correspondence at trouble development. Approximately 50% of the patients felt uneasiness when using the wheelchair for the first time. The uneasiness of the present patients decreases more. Approximately 80% of patients are uneasy for the alarm development of the respirator and a sudden halt of the machine. However, the patients whom we worry about when there may be a trouble during the electric wheelchair ride that carried a respirator are approximately 40%. Aoki described that this respirator becomes physical some us now, and it is in a sense same as that glasses can be written [1]. As for the patients using electric wheelchairs with respirators, the territory has expanded and there seems to be little concern about this.

It was hoped that they wanted to act between one them or them freely. The patients stated that "it is a valuable time to be alone when I get in the electric wheelchair". Approximately 90% of the nurses felt that it was dangerous for the patients to get in electric wheelchairs with respirators. Nurses are always aware of problems with the respirators and expect the behavior of the patients in the eyeshot. Only 40% of the patients received an explanation about the field of activities when they got into the wheelchairs. Only approximately 50% of the nurses explained this. This lack of explanation about wheelchair use from the nurses' side is considered. Tatara said that "It is an important problem to aim at the improvement in the quality of life of the patients receiving chronic artificial respiration. However, it is difficult to perform it safely." [2]. It is important to improve the environment in which patients can use electric wheelchairs with respirators.

Therefore, the risks of the respirator deployment electric wheelchair ride are explained to patients and families, and it is necessary to improve their understanding. For the security of the patients, the making of a manual with which healthcare workers can provide consistent guidance is necessary.

References

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