Medication management for patients with Parkinson's disease: The effect of the medicine management chart

Erika Hosokawa, R.N.[#1], Hiromi Fujimoto, R.N.[#1]

#1 . Department of Nursing, Tokushima National Hospital, National Hospital Organization, 1354 Shikiji, Kamojima, Yoshinogawa, Tokushima 776-8585 Japan

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Abstract

The patients with Parkinson's disease often cannot do medication appropriately. This study was intended to establish medication management methods appropriate to the ability of individual patients. We examined the effect of an oral medicine management capability chart for three patients. The medication management methods using our management chart were linked to certain internal use management.

Keywords: Medication management, Parkinson's disease, medicine management chart, oral medicine, management capability chart

Introduction

In our ward, medication has been managed using an oral medicine management chart since 2010. The subjects were patients with Parkinson's disease that did not have problems with cognitive function. A decline in the cognitive function of PD patients may develop throughout the disease course. Mild cognitive impairment (PD-MCI) is present at the time of diagnosis in about 35 % of individuals and in approximately 50 % of all non-demented PD patients after five years [1]. The patients with Parkinson's disease with cognitive dysfunction often have decreased adherence. Furthermore, the patients does not rarely get the wrong medication. This may lead to a serious accident. Therefore, in our ward, a cognitive test was added, and the oral medicine management capability chart was revised. We gave medicine using this chart, and we cared for us for patients with Parkinson's disease with cognitive functional decline. This reduced medication mistakes, and led to good medication management by patients after discharge.

Subjects and methods

The subjects of this study were six patients with Parkinson's disease hospitalized for the purpose of a five-week rehabilitation. The study period was from May, 2013 to December, 2013. Information on the cognitive function and medication situation was added to a medication management chart. We used the medication management seat which evaluated the medication management capability of the patients [2] with a modification. (Table 1) Medication management methods were determined in the light of medicine management criteria (Table 2) in the information on the internal use management chart. The medication situation was evaluated every week. The course of hospitalized internal use management was conveyed at the briefing session before discharge, and patients were taught how to continue internal use management after discharge. Internal use management continues, and it is possible, or,

Correspondence to: Erika Hosokawa, R.N., Tokushima National Hospital, National Hospital Organization, 1354 Shikiji, Kamojima, Yoshinogawa, Tokushima 776-8585 Japan Phone: +81-883-24-2161 Fax : +81-883-24-8661

discharge one month later, a questionnaire is conducted. The questionnaire was conducted by a mailing method and was the answer by the reply. Three months after discharge, patients were interviewed about the internal use management situation on the telephone.

Ethical consideration

We explained to the subjects that they would not be inconvenienced or suffer any disadvantage from their participation in study. The data would not be used for any reason beyond the purpose of the study. The identity information, including the subjects' names, was replaced with a symbol so that individuals could not be identified. Approval was obtained from the Tokushima National Hospital Ethical Review Board.

Results

Of the six enrolled patients, three (Patients 1-3) agreed to the phone interview three months after the discharge. Patient 1 was a man in his 60s. His frontal lobe function (FAB) was 14 and his recognition function test score (MMSE) was 29. His wife conducted the management of the medicine prior to admission. The internal use management after the hospitalization reached level B and thereafter improved to level A2. Management of the medicine was good according to his answers to the questionnaire after discharge. He said as follows three months after discharge. "My wife distributes medicine between three times and asks me to take it. There have been no mistakes with taking medicine since my discharge". Patient 2 was a woman in her 70s. Her FAB was 15 and MMSE was 29. The management of the medicine reached in self prior to admission. She might sometimes forget to take it. The internal use management after the hospitalization reached level B. According to the questionnaire one month after her discharge, there had been no mistakes in taking medicine. In the interview three months after her discharge, she said as follows. "The medicine can be taken without mistakes". Patient 3 was a woman in her 80s. Her FAB was 8 and MMSE was 24. The prehospital medicine cared for oneself. There were many mistakes about taking medicine. After evaluating her state after hospitalization, the medication management became level A2. The management was improved subsequently in level A1 because there were no mistakes with medication. According to the questionnaire results one month after her discharge, the management of the medicine was good. In the interview three months after her discharge, she said: "I can take medicine according to the instructions. The remedy was not forgotten". In addition, three patients received medication counseling from a pharmacist for a week during hospitalization.

Discussion

By the use of the management chart, the patients did not have the medication errors during hospitalization. Good remedy management was enabled after discharge. Also, the medication counseling every week by the pharmacist deepened consciousness for the medicine of the patients. We will investigate the management situation in the homes of patients and their families in future. An at-home cooperation system consisting of a physician, a pharmacist and a nurse is going to be introduced.

Reference

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Table 1. Medication management seat

◎自宅での管理方法・・・　自己管理（□1回ずつ　□1日ずつ　□1週間ずつ）
家庭管理（□1回ずつ　□1日ずつ　□1週間ずつ）
※1週間分ずつケースに入れていたや朝昼夕と小分けにしていたなど具体的に記入

◎入院時の内服薬の残薬・・・　□あっている　□あっていない
※どの程度残数が合っていないのか具体的に記入

◎家族の協力体制・・・　□可能　（協力者：　）　□不可能
※家族と同居や一人暮らし、協力者がどの程度得られるか具体的に記入

◎内服評価：入院時・毎週火曜日・病状変化時（処方変更時、追加時）、ヒヤリハット時（飲み間違いや飲み忘れ）

日付	カンファレンス内容・内服薬管理能力評価（内服薬管理能力チャートを用いて）	管理方法（A①など）
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《管理方法》 毎火曜日・変更時は必ずカンファレンス
A ： 自己管理 （リスクの可能性のある患者様は毎回声かけを行う。）
B ： 1日セット（1日分薬箱に患者様が薬を詰める。昼食後に行ってもらう。）内服後空確認
C ： 1回分セット　服用後空確認
D ： 1回配薬 （飲んだ確認を行う。状況により飲み込むまで確認。）
★ 評価 ： 入院時（又は翌日）・1週間後・病状変化時（処方変更、追加時など。）
カンファレンス（日勤部屋係が他Ns・[リーダーは必ず]と決定する。）

Table 2. Medicine management criteria

Level	Commentary	
A1	Self-care	The patient takes the medicine by him/herself independently.
A2	Semi-self-care 1	The patient takes the medicine by him/herself independently. The nurse confirms it.
B	Semi-self-care 2	The patient prepares medicine assigned to one day and takes it by him/herself. The nurse confirms the medication.
C	Semi-self-care 3	The patient prepares medicine by individual medication. The nurse confirms it.
D1	Nurse supply 1	The nurse keeps and distributes the medicine. The patient takes the medicine while a nurse watches.
D2	Nurse supply 2	The nurse keeps and distributes the medicine, and opens the press-through-package of the drug. The patient takes the medicine while a nurse watches.
D3	Nurse supply 3	The nurse keeps and distributes the medicine, and opens the press-through-package of the drug. The nurse assists the patient in taking the medicine.