

An Analysis of the Effect of Health Information Management for the Treatment of Herniated Lumbar Disc

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수핵탈출증 치료를 위한 건강정보관리 적용의 효과 분석

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Abstract

The purpose of this study is to analyze the effect of the application of health information management for the treatment of herniated lumbar disc. The subjects of the study were 86 patients who visited orthopedics at a general hospital in the metropolitan area from June 20 through July 27, 2023. Before and after the application of health information management of patients with herniated lumbar disc, it was analyzed by a t-test. The results of this study are as follows. Firstly, pineapple intake was 25.42 points on average after health information management application, significantly higher than the average of 13.56 points before application($t=-2.61$, $p<.05$). Secondly, herniated lumbar disc continued to decrease after 9 days compared to before the application of the health information management. In conclusion, the application of health information management was effective in alleviating the problem of herniated lumbar disc. These findings are expected to contribute to alleviating herniated lumbar disc in the future.

1. Introduction

The herniated lumbar disc is a disease that occurs when the disc protrudes outward due to the wrong posture in the vertebrae. The herniated disc is in the age of two million[1],[2]. Back disc is a common disease for modern people who often sit for a long time. Herniated lumbar discs are difficult to lie, walk, sit and move. The herniated disc has to be deal with because of the great discomfort in daily life. If it is extremely severe, surgery may be necessary, and such surgery may be very difficult[3].

It is therefore necessary to adapt the method to this. It is important to prevent the herniated lumbar disc from daily life. Therefore, The purpose of this study is to analyze the effect of the application of health information management for the treatment of herniated lumbar disc.

2. Materials and Methods

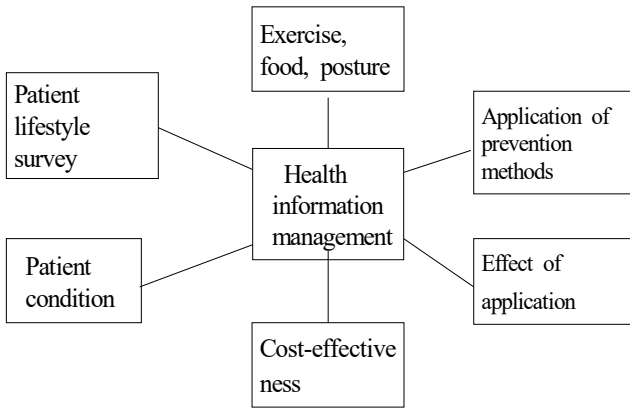
2.1 Materials

The subjects of the study were 86 patients who visited orthopedics at a general hospital in the metropolitan area from June 20 through July 27, 2023. Figure 1 shows the elements of health information management to treat herniated lumbar disc[Figure 1].

2.2 Methods

Before and after the application of health information management of patients with lumbar disc, it was analyzed by a t-test. In terms of symptoms of herniated lumbar disc patients, 8, 16, 24, and 32 days were measured before and after the application of health information management.

The experimental group is classified as the group that applied health information management, and the control group is classified as the group that did not apply health information management.



[Fig. 1] Elements of Health Information Management to Treat Herniated Lumbar Disc

3. Results

3.1 Comparison Before and After the Application of Health Information Management

Table 1 presents a comparison before and after the application of health information management for the treatment of lumbar disc. Pineapple intake was 25.42 points on average after health information management application, significantly higher than the average of 13.56 points before application ($t=-2.61, p<.05$). Physical stretching was significantly higher than the average of 43.18 points before the application, with an average of 22.49 points after the application of health information management ($t-1.57, p<.05$).

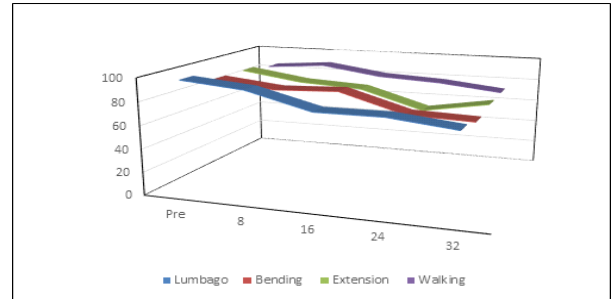
[Table 1] Comparison Before and After the Application of Health Information Management

Variables	Before	After	t
Eating pineapples	13.56±1.39	25.42±1.75	-2.61*
Eating garlic	31.57±3.46	46.39±2.92	-5.28*
Milk consumption	24.73±1.85	41.37±0.42	-1.72**
Drinking dandelion tea	13.85±4.72	29.72±3.62	-4.36*
Physical stretching	22.49±0.65	43.18±0.45	-1.57*
Acupressure on the shoulder	25.07±1.43	45.52±1.62	-1.82*
Squat movement	28.45±3.61	47.26±2.57	-3.69
Acupressure on the waist	31.72±0.48	45.13±0.59	-1.45*
Weight management	43.16±1.28	41.75±1.63	3.27
Jogging exercise	35.63±0.47	43.25±0.92	-1.95*

* p<.05 ** p<.01

3.2 Changes in Lumbar Disc Condition Over Time

Figure 2 presents the change in lumbar disc condition over time. Lumbago continued to decrease after 8 days compared to before the application of the health information management. However, after 15 days, it has been increased again.



[Fig. 2] Changes in Herniated Lumbar Disc Condition Over Time

4. Discussion

The study is to analyze the effect of the application of health information management for the treatment of herniated lumbar disc. As a result, lumbago was significantly has decreased after application compared to before health information management application. This study showed similar results to the disorder of arthritis in previous study[4],[5]. The herniated lumbar disc can be improved through the management of health information such as stretching, food and acupressure.

In this study, the difficulty of herniated disc has decreased after application than before health information management was applied. This is a similar result to the arthritis in previous studies[5],[6]. Inflammation of the disc can cause symptoms of lumbar. Patients with pineapples consumption is recommended to prevent inflammation of the lumbar disc. Through the results of this study, the application of health information management was effective in alleviating the difficulty of lumbar pain. These findings are expected to contribute to alleviating herniated lumbar disc in the future

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