

# Effect of A New Clinical Information System to Prevent of Stomach Cancer in Patients with Intestinal Metaplasia

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## 장상피화생 환자들의 위암 예방을 위한 새로운 임상정보 시스템의 효과

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### Abstract

This study analyzes the effectiveness of a new clinical information to prevent stomach cancer in patients with intestinal metaplasia. The survey was conducted with 124 subjects who visited internal medicine of a general hospital located in C area from May 7 through July 12, 2019. The results of this study are as follows. First, the experimental group showed significantly higher feeling of abdominal swelling than the control group( $X^2=5.29$ ,  $p<.05$ ). Second, physical immunity is higher since 11 days in the experimental group than the control group. Therefore, it has been confirmed that it is important to practice daily health activities such as drinking tea, exercising, and stress management.

### 1. Introduction

Gastric cancer is the number one cancer outbreak in Korea. Intestinal metaplasia is the mucous membrane of the stomach that has changed like the mucous membrane of the intestine. The incidence of stomach cancer increases by 2-4 times compared to normal people in cases of intestinal metaplasia[1, 2]. If chronic atrophy is prolonged and repeated, it will develop into intestinal metaplasia with a high incidence of gastric cancer. We need to manage our daily lives so that the burn does not develop into stomach cancer[3, 4]. Therefore, this study analyzes the effectiveness of new clinical information to prevent stomach cancer in patients with intestinal metaplasia.

### 2. Materials and Methods

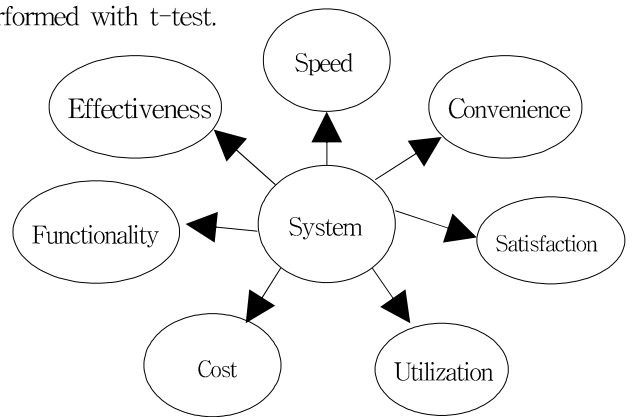
#### 2.1 Materials

The survey was conducted with 124 subjects who visited internal medicine of a general hospital located in C area from May 7 through July 12, 2019.

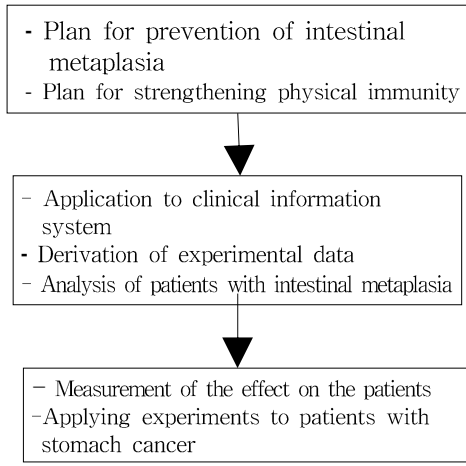
After applying two groups, the physical immunity was measured over time : 11, 22 and 33 days. Figure 1 shows the composition of the clinical information system to prevent intestinal metaplasia. Figure 2 shows the design of system to prevent intestinal metaplasia.

#### 2.2 Methods

Factors related to intestinal metaplasia were performed with  $X^2$ -test. The physical immunity over time was performed with t-test.



[Fig. 1] Composition of clinical information system to prevent intestinal metaplasia



[Fig. 2] Design of information system for the prevention of intestinal metaplasia

### 3. Results

#### 3.1 Factors related to intestinal metaplasia

Table 1 shows the factors associated with intestinal metaplasia. The experimental group showed significantly higher feeling of abdominal swelling than the control group ( $X^2=5.29$ ,  $p<.05$ ).

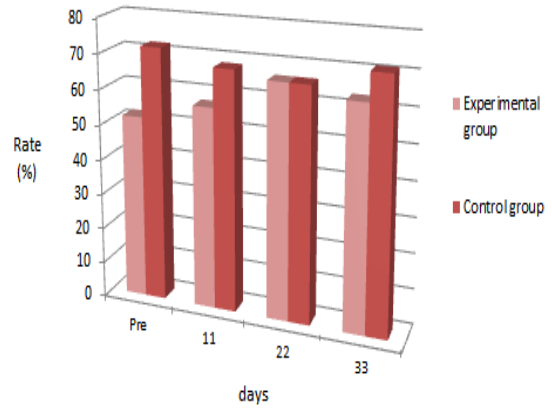
[Table 1] Factors related to intestinal metaplasia

Variables	Experimental group	Control group	$X^2$
Garlic intake			
Seldom	35(56.5)	14(22.6)	1.75*
Frequently	27(43.5)	48(77.4)	
Abdominal swelling			
Seldom	24(38.7)	43(69.4)	5.29*
Frequently	38(61.3)	19(30.6)	
Fatigue			
Seldom	13(21.0)	37(59.7)	2.48**
Frequently	49(79.0)	25(40.3)	
Exercise			
Seldom	45(72.6)	29(46.8)	6.35*
Frequently	17(27.4)	33(53.2)	
Dandelion tea			
Seldom	52(83.9)	39(62.9)	1.72**
Frequently	10(16.1)	23(37.1)	
Total	62(100.0)	62(100.0)	

\*  $p<.05$  \*\*  $p<.01$

#### 3.2 Changes over time in strengthening immunity

Figure 3 shows that the physical immune system varies over time. Physical immunity is higher since 11 days in the experimental group than the control group.



[Fig. 3] Changes over time in strengthening physical immunity

### 4. Discussion

This study analyzes the effectiveness of new clinical information to prevent stomach cancer in patients with intestinal metaplasia.

As a result, this study shows that the experimental group has significantly improved immunity compared to the control group. The finding was similar with the previous studies on liver cancer[5, 6]. This study suggests that intestinal metaplasia patients should be performed jogging to improve physical management. Based on the results, it is anticipated that this paper may be used as basic data for preventing intestinal metaplasia. The results are best for increasing the recognition of medical mediation. The effectiveness of the intervention significantly decreased physical symptoms to patients and then various approach is required to reduce the incidence of stomach cancer.

Therefore, after applying the information system, correct health actions such as garlic intake, jogging, and dandelion tea are implemented. As a result, it has been confirmed that it is important to practice daily health activities such as drinking tea, exercising, and stress management.

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