Health Conditions of Women Divers in Jeju

Min Young Kim¹, Suyoung Choi¹ and Woo Jeong Kim²,

¹College of Nursing, Jeju National University, 102, Jejudaehakno, Jeju, Korea 690-756,
²Department of Emergency Medicine, School of Medicine, Jeju National University, 102 Jejudaehakno, Jeju, Korea 690-756

Abstract. Women divers have been exposed to breathing without any respiratory equipment for several decades and are becoming increasingly aging. However, there are few data about their health problems. In this study, 87.4% were 65 years or order. Most had one or more comorbidity and were taking medication. 12.3% had discharge diagnosis related to injury, and almost half of injuries were caused by slip down. Older women divers were likely to have comorbid disease and take medication, and use 119 to visit ED more. Also, older women divers were admitted to hospital more often, and had more discharge diagnoses related to slip-down injury, digestive, respiratory, and circulatory. Health management program included management of chronic illness as well as prevention of injury is needed for women divers.

Keywords: Health problems, Woman diver.

1 Introduction

The women divers in Jeju islands are estimated to be about 20,000 people. They are so symbolic profession in Jeju that it is being prepared to list them as a UNESCO intangible cultural heritage of humanity. According to the Jeju Special Self-Governing Province, women divers are becoming increasingly aging. In other words, over 50 years old was 29.5% in 1980s, but over 70 years old was 43.3% in 2010(1). Old women divers still works in hard work environment of sea. Sometimes, they appealed physical symptoms related to their job in some media or interviews. Women divers have been exposed to breathing without any respiratory equipment for several decades and are aging. Many of them seem to experience chronic headache and use the nonprescription medication including high caffeine. But, there are few data of their basic health conditions. Therefore, health condition such as symptoms, function, or chronic illness needs to be analyzed to provide health management program for women divers.

2 Method
2.1 Design and Subjects

This study was designed to identify health problems of women divers. Subjects were 480 women divers who had diver’s insurance of Jeju Special Self-Governing Province and visited emergency department (ED) at one hospital from July, 2012 to June, 2013.

2.2 Procedure

Total 733 electronic medical records of 480 women divers who visited ED were analyzed. The analyzed contents were gender, age, symptom, diagnosis, outcome of treatment, vital sign, functional status, medication history, and outcome at emergency department.

2.3 Data Analysis

Data analysis was performed using the SPSS Statistics version 18.0 software package. Descriptive statistics were used to describe the characteristics of participants. Chi-square analysis was used to identify the health conditions according to age.

3 Results

A total of 733 cases were enrolled during the study period. The mean age was 74.3 years, and 87.4% were 65 years or older. 88.0% of them had one or more comorbidity and 90.5% were taking medication. Two-third of patients used private methods to visit ED. Ninety cases had discharge diagnosis related to injury, and almost half of injuries were caused by slip down. The clinical characteristics that showed significant differences by age were comorbidity ($\chi^2=29.379$, $p$-value<.001), currently taking medication ($\chi^2=29.053$, $p$-value<.001), mode of arrival ($\chi^2=33.052$, $p$-value<.001), outcome at ED ($\chi^2=35.902$, $p$-value<.001), injury ($\chi^2=8.067$, $p$-value=.044), and kinds of illness ($\chi^2=49.546$, $p$-value=.005). Also, older women divers were admitted to hospital more often. Older women divers had more discharge diagnoses related to slip-down injury, digestive, respiratory, and circulatory illness.

4 Discussion

Study about women divers has been somewhat limited. In Korea, underwater pulmonary function(2) or changes in thermal insulation during underwater exercise(3) was performed in 1980s. The study did not be performed for a while, and some studies have been performed since 2000 about physical condition such as intraocular pressure and optic nerve(4), blood pressure, changes of musculoskeletal system(5-6), or public welfare service(7). Because these were focused on specific symptoms, it was difficult to understand general health condition of women divers. In this study,
most women divers had comorbidity and took medication. Older women divers were likely to have comorbid disease, take medication, and experience the injury more. Based on these results, we can understand women divers’ health condition. However, there is a limitation of indirect analysis according to chart review. Therefore, field survey about health condition is needed.

5 Conclusion

This study showed that the aging women divers experienced considerable injury like other old women. Therefore, when the health program for women divers is developed, injury prevention must be included. Because research for women divers is limited in reality, the results of this study will be helpful to understand of basic health conditions. Furthermore, in-depth understanding is needed based on these results.

References