Hand or Foot Covering Does Not Affect Efficacy of Cryotherapy for Prevention of Objective and Subjective Symptoms of Paclitaxel-Induced Neuropathy; Data from the Self-Controlled Trial

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Introduction

We evaluated preventive effects of **cryotherapy** and concluded it was effective in for both the objective signs and subjective symptoms of **chemotherapy induced peripheral neuropathy (CIPN)**. The frozen gloves and socks are being recalled due to 2 frostbite cases, caused by using dry ice. In our study, patients used **coverings** to alleviate the cold discomforts and **there was no dropout due to cold intolerance or frostbite**. However, coverings might interfere the effects of cryotherapy.

■**Purpose**■ To evaluate the impact of coverings on the efficacy of cryotherapy.

Cryotherapy with coverings

Method

Key criteria

Inclusion

Candidate for weekly paclitaxel (80 mg/m² for 1 h) for at least 12 cycles (960 mg/m²)

Exclusion: not suited for cryotherapy

- peripheral sensory/motor neuropathy (grade ≥ 2) - neuralgia or edema (grade ≥ 2)
- tumor metastasis in the hands or feet
- the absence of one or more fingers or toes
- Raynaud's symptoms; peripheral arterial ischemia; hand-foot syndrome; and any other reasons based on the primary physician's judgment.

Results

Table1. Patients characteristics

	Hand Non-Covering (n = 18)	Hand Covering (n = 22)	Foot Non-Covering (n = 13)	Foot Covering (n = 27)
Age years Mean(SD)	52.9 (15.3)	58.1 (12.6)	57.6 (14.2)	55.4 (13.8)
Weight kg Mean (SD)	54.0 (5.7)	56.7 (8.4)	51.6 (4.9)	57.1 (7.8)
BMI kg/m ² Mean (SD)	22.4 (2.1)	23.5 (3.4)	21.5 (2.2)	23.6 (3.1)
BSA Mean (SD)	1.5 (0.1)	1.5 (0.6)	1.5 (0.1)	1.6 (0.1)
AUC (μg·h/ml) Mean (SD)	7.7 (1.7)	7.7 (0.5)	7.6 (0.8)	7.4 (1.5)

Figure1. Subgroup analysis

Figure3. Primly analysis

Conclusion

Coverings (precaution for frostbite) did not reduce the efficacy of cryotherapy in preventing CIPN

Future trials are needed to identify the appropriate setting of cryotherapy and we should establish "standard precaution" about cryotherapy with more comfortable and safe temperature.

We gratefully acknowledge support for the data collection provided by H. Ishikawa, A. Mizushima, A. Yamaguchi, K. Maekawa, Y. Fukui, M. Nio, T. Nakakimura, Y. Nakayama, T. Kotake, S. Yanai, T. Hitomi, Y. Nakayama, M.Torii, K. Tsuji, M. Miyayama, and the medical staff (physicians, nurses, and pharmacists) of Kyoto University Hospital. This material is based on work supported by the Japan Society for the Promotion of Science and the Promotion Plan for the Platform of Human Resource Development for Cancer administered by the Ministry of Education, Culture, Sports, Science and Technology in Japan.

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