

**Safety and Complications of Oncothermia in Korean Cancer Patients: A Retrospective Analysis of Single Institutional experince**

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**Purpose:** Oncothermia has been started in South Korea since 2007 and its treatment is getting gradually expanded in Korean cancer patients. Though this device is widely accepted that it is safe and beneficial, Korean experience of oncothermia was not known until now. Thus this study was undertaken retrospectively to determine the safety and complications of oncothermia

**Methods:** From June to November in 2009, 127 cancer patients were received oncothermia alone or combined with other cancer treatment at SAM general hospital. Totally 1332 sessions (range: 1~61 sessions) were performed during the period.

**Results:** The median age of the patients was 55.5 years (range: 20~85). Sixty-three patients were male and 64 were female. The kinds of cancer were stomach (35, 27.5%), colon and rectum (21, 16.5%), lung (15, 11.8%), pancreas (10, 7.8%), ovary (9, 7%), liver (8, 6.3%), breast (6, 4.7%), biliary tract (4, 3.1%), cervix (4), brain tumor (3, 2.4%), pleural mesothelioma (3), bladder (2, 1.6%), malignant lymphoma (2), sarcoma (2), esophagus (1), nasopharyngeal cancer (1) and malignant thymoma (1). Erythema (2 cases, 1.5%) and fat burn (2 cases, 1.5%) were major complications and transient fever (25 cases, 19.6%) was observed. In case of erythema and fat burn, we stopped 1-3 sessions and then retried carefully. All patients continued oncothermia with no problem. Transient increase ( $> 0.5^{\circ}\text{C}$ ) in body temperature were also observed in 59 sessions of 25 cases. Average temperature change was  $1.3^{\circ}\text{C}$  and maximum was  $2.5^{\circ}\text{C}$  which all were restored in 1 hour. Ten patients (7.9%) complained mild to severe fatigue and 2 patients (1.6%) of them refused oncothermia because of condition deterioration. It happened within first 3 sessions and it seemed to be related with their disease state. Fifty-four patients discontinued due to death (17), disease progression (22) and cost burden (15).

**Conclusion:** Our data suggests that oncothermia is extremely safe and a feasible cancer treatment option in Korean cancer patients. However, the benefit is not defined yet. So, further prospective clinical investigation and study are required by the first Korean oncothermia study group have been formed recently.

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## **References:**

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