## **Abstract**

Lubiprostone is an effective drug for various types of constipation in patients without cancer; however, there is no report on its efficacy and safety in patients with cancer. Our purpose was to evaluate the efficacy and safety of lubiprostone for constipation in cancer patients. We retrospectively studied 124 patients (cancer, N=67) who were treated with lubiprostone for constipation in our hospital between June 2013 and May 2016. The number of bowel movements (BMs) increased in the both the cancer and non-cancer groups. The mean change in BM frequency did not differ between the two groups. Approximately 70% of patients in both groups had an initial BM within 24 hours after administration of lubiprostone. The most common lubiprostone-related adverse events in both groups were diarrhea (38.8% vs. 14%), and nausea (22.4% vs. 8.8%). No lubiprostone-related serious adverse events occurred. Discontinuation due to the side effects of lubiprostone was more frequent in cancer patients (p=0.023). Logistic regression analysis showed that the risk of discontinuation of lubiprostone in cancer patients was high in patients with a body-mass index (BMI) < 22, and low in patients using opioids and magnesium oxide dosage  $\geq 1000$  mg/day. Our study showed that while lubiprostone was as effective in cancer patients as in non-cancer patients, in cancer patients it was associated with a high incidence of diarrhea and nausea side effects and warranted caution, especially in patients with a low BMI.