A method to evaluate seasonality of chronic constipation using electronic medical record: STADY project

Mizutani Takashi 1, 2, Yoshihara Masahiko 2, 3, Ukawa Kunio 2, 4, Nagashima Kimiyuki 2, 5, Hatori Yutaka 2, 6

1 Minaminagata Medical Clinic, Yokohama, Japan, 2 Dynamics Research Group, Tokyo, Japan, 3 Yoshihara Naika Clinic, Tokyo, Japan, 4 Ukawa Clinic, Isehara-shi, Japan, 5 Nagashima Orthopedic Clinic, Mibu-cho, Japan, 6 Hatori Medical Clinic, Kawasaki, Japan

<Background>
Clinician suggest that the condition of chronic constipation changes with seasons. However, the fact has not been verified yet.

<Objective>
The purpose of this study is to estimate seasonality of the chronic constipation by using electronic medical record from the "STADY" project.

<Methods>
Prescription data from 43 clinics during January 1, 2012 and December 31, 2012 are collected from the "STADY" project, covering 3792 patients with 28687 prescriptions which include laxative. We calculate the average of quantity of laxative (Magnesium oxide) in each patient. Then we presume the seasonality of chronic constipation by comparing those numbers with the mean value of the whole study period.

<Results>
The total number of the patients using magnesium oxide are 1518. The proportion of patients who magnesium oxide is prescribed changed by month from 12.2% to 16.4%. This increase is observed from May through December.

<Discussion>
When it becomes warm, the prescription quantity of the medicine for constipation increases. There is a possibility of correlating with the quantity of the sweat. It is unclear if there are correlation with blood pressure, social habit, hey fever or infectious diseases.

<Conclusion>
The study supports the hypothesis that there is an annual seasonality of chronic constipation with peaks between May through December.