

CO-ORGANIZED EVENT

International Conference on **Chronic Diseases**

&  
6<sup>th</sup> International Conference on **Microbial Physiology and Genomics**

August 31-September 01, 2017 Brussels, Belgium



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### Low carbohydrate diet with Morbus (M) value research and medical care including exercise and music therapy

**Background:** Recently, metabolic syndrome has been prevalent and not easy to treat with nutritional and exercise treatment persistently. We have treated thousands of metabolic patients with Low Carbohydrate Diet (LCD) for years and reported several papers concerning LCD, and ketone bodies and Morbus (M) value in research.

**Subjects & Methods:** Subjects included 52 patients with diabetes mellitus, and basal biomarkers were measured including blood glucose, HbA1c, TG, HDL-C, LDL-C, uric acid, and so on. They were given usual calorie restriction (CR) diet (60% carbohydrate, 1400 kcal/day) on day 1-2, and super LCD on day 3-14. Daily profile of blood glucose seven times a day and M value were investigated.

**Results:** By the level of M value, subjects were classified into four groups. M value ranged from 13.6 to 425.6 on day two (CR) and from 9.0 to 82.1 on day four (LCD). The average HbA1c in four groups were 6.2%, 7.0%, 8.1% and 9.0%, respectively. Blood glucose on day four was significantly decreased compared with those on day two in each group. M value was significantly decreased from day two to day four in group two, three and four.

**Discussion & Conclusion:** The efficacy of LCD was observed from day two to day four, with significant decrease in glucose and M value. The carbohydrate amount was decreased from 210 g (CR) to 42 g (LCD) per day, resulting in decreased average glucose and M value. These findings suggest that M-value would be useful marker for treatment of T2DM clinically and research in glucose variability. Author has continued several treatment and care for Integrative Medicine (IM) and Complementary and Alternative Medicine (CAM), such as exercise therapy, music therapy with piano playing. Author will show various trials for patient-oriented practice of medicine in the key note lecture.

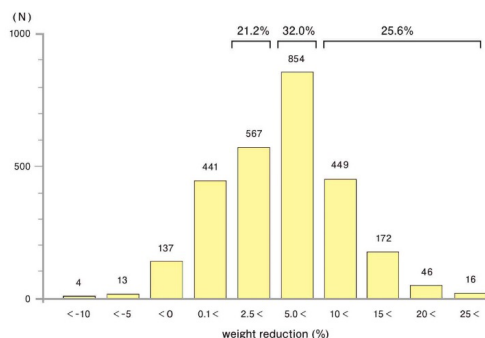


Fig. 1. Weight reduction rate in 2,699 cases. Five hundred sixty-seven subjects (21.2%) had a weight reduction of 2.5% to 4.9%, 854 (32.0%) had 5.0% to 9.9%, 683 (25.6%) had 10% and more than 10%. Thus, 2,104 subjects (78.8%) showed weight reduction of 2.5% and more than 2.5%.

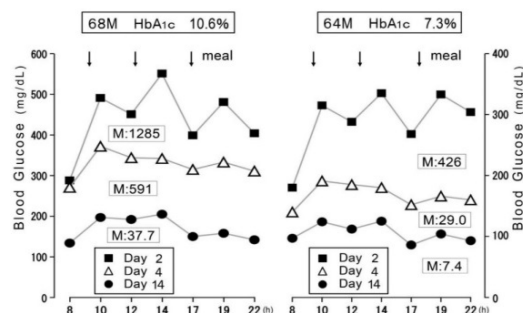


Figure 2: The changes of M value from CR to LCD

### Biography

Hiroshi Bando is a Physician with specialties in "Diabetes, primary care medicine and life style-related disease". He is the President of Annual Congress of 8<sup>th</sup> Japanese Primary Care Association and Editor of *Diabetes Research Open Journal*.

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