

Health-Care Center

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General Summary

The most outstanding activity during the 2012-13 year was the organization of the annual meeting of the Japanese Society of Ningen Dock 2012. Many studies using the database, which was provided by the Shimbashi Medical Checkup Office (a section of the Health-Care Center), were presented or published.

Our study of the potential utility of perimetry to identify patients with glaucoma was selected to receive a researcher's award from the *Nihon Sogo Kenshin Igakukai*.

Research Activities

A relationship between the incidence of metabolic syndrome and the frequency of feeding
Healthy persons (3,949 men and 2,155 women) aged 30 to 59 years were selected and divided into groups based on how often they ate breakfast. After 2 years the incidence of metabolic syndrome was compared between the groups. The incidence of metabolic syndrome was significantly lower for groups that ate breakfast 0 to 1 times a week or 6 to 7 times a week than for other groups (7.59% vs. 11.13%).

A study of serum alkaline phosphatase variability

Alkaline phosphatase (ALP) is a common and well-established indicator of hepatic and biliary disorders, although it varies under many conditions. We focused on age, sex, blood type (A/B/O), and menstrual status to define the magnitude of serum ALP level variability. We found that female subjects showed age-dependent increases in serum ALP levels and that the increases correlated with the time since menopause. An evaluation of blood type showed that serum ALP levels were higher in subjects with type B or O. The greatest difference was between type O (218 ± 49 U/L) and type AB (186 ± 44 U/L) in male subjects. Because of these results, a new "normal" range for serum ALP is under discussion.

Respiratory function and smoking, body weight

From the standpoint of preventive medicine, preventing people from smoking is an important task. To educate the general public, "lung age," a variable calculated from height and forced expiratory volume in 1 second, is persuasive. According to our database, current smokers have a "lung age" 9.8 ± 14.7 years greater than their chronological age, whereas that of past smokers is 4.8 ± 17.8 years greater, and that of nonsmokers is 0.8 ± 14.7 years less. Moreover, a comparison of weight loss and "lung age" showed that weight loss is proportional to the decrease in "lung age."

The potential utility of perimetry at physical examinations to identify persons with glaucoma

Recent studies show that approximately 90% of cases of glaucoma in Japan are normal-pressure glaucoma, which cannot be detected with screening ophthalmotometry. We used perimetry at physical examinations to identify persons suspected of having glaucoma; of these persons, 45 who were finally found to have as glaucoma underwent ophthalmotometry. All 45 subjects had normal intraocular pressure, which indicates the potential utility of perimetry at physical examination for identifying persons with glaucoma.

The study was selected to receive a researcher's award from the *Nihon Sogo Kenshin Igakukai*.

Publications

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Wada T, Ban H, Hasegawa Y. Does skipping or lacking of breakfast develop metabolic syndrome? (in Japanese). *Nihon Naika Gakkai Zasshi*. 2013; **102** Suppl: 258.

Matsuda H, Nakano T, Noro T, Sibata A, Shioya N, Gondo M, Takagi M, Takashina H, Hara T, Mitooka K, Tsuneoka H, Wada T. Assessment of optic disc using 2D and 3D non-mydiatic fundus camera and analysis system (in Japanese). *Tokyo Jikeikai Ika Daigaku Zasshi*.

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Reviews and Books

Wada T. Check, care and promotion in ningen dock (in Japanese). *Karada no Kagaku*. 2012; **Suppl**: 4-9.

Nakano T, Noro T, Tatemichi M, Wada T. Screening of glaucoma in medical checkup in offices and ningen dock (in Japanese). *Nihon no Ganka*. 2012; **83**: 1030-4.

Wada T. Medical dictionary of examination and data (in Japanese). Tokyo: Nihon Bungeisha; 2012.