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# A SURVEY ON URINATION PROBLEMS AMONG 570 PATIENTS IN THE CITY OF KYOTO, JAPAN- A COMPARISON STUDY BETWEEN UROLOGY CLINICS (309 PATIENTS) AND OTHER MEDICAL FACILITIES (261 PATIENTS)

### Background / aims of study

Japan has the highest longevity rate in the world, and its population is expected to continue to age at a rate exceeding that of the world for the next 30 years. The establishment of adequate medical and nursing care systems by 2025 is of high priority because the aging population will reach its peak in that year due to the fact that individuals from the baby-boom generation will be aged 75 years or older by 2025.

Presently, seminars and lectures on age-related topics such as dementia and diabetes mellitus are being offered to middle-aged and older individuals at the community level to help them avoid requiring nursing care. However, regarding urination problems, there is no evidence-based information supported by scientific assessment on the current status and the actual benefits of support through medical interventions.

A questionnaire was answered by patients examined during a 1-month period at 7 medical facilities selected from the member organizations of the Kyoto City Nakagyo-seibu Medical Association (a medical association in an urban area) to determine the proportion of patients who have urination problems in their daily lives and how they handle the problems. This study aimed to establish evidence for a system to provide the medical care based on the need for at-home urinary management.

## Study design, materials and methods

A questionnaire on urination problems (Fig.1) is to be administered to patients from member organizations of the Kyoto City Nakagyo-seibu Medical Association that provide consent to participate in this survey over a period of 10 weeks. The survey is anonymous to protect personal information.

#### **Results**

Among women (n=550), 189 (61.2%) were examined at urology clinics (n=309) and 361 (63.3%) were examined at other medical facilities (n=570). Among men (n=329), 120 (38.8%) were examined at urology clinics and 209 (36.7%) were examined at other medical facilities. No difference in the male-to-female ratio was identified using the chi-square test. The patients examined at the other medical facilities were significantly older compared to the age of the patients examined at the urology clinics. The number of patients aged 80–89 years was 26 (8.4%) at the urology clinics and 87 (15.3%) at the other medical facilities (p = 0.0176).

Pollakisuria (daytime urinary frequency of 8 times or more) was observed in 120 patients (39.4%) examined at the urology clinics and 119 patients (22%) examined at the other medical facilities. A chi-square test revealed that there were significantly more patients with pollakisuria at the urology clinics than at the other medical facilities. Nocturia (night-time urinary frequency of 3 times or more) was observed in 51 patients (17.2%) examined at the urology clinics and 51 patients (9.4%) examined at the other medical facilities. A chi-square test revealed that there were significantly more patients with nocturia at the urology clinics than at the other medical facilities. A chi-square test revealed that there were significantly more patients with nocturia at the urology clinics than at the other medical facilities.

The number of patients with difficulties related to urination was 114 (38.4%) at the urology clinics and 108 (23.5%) at the other medical facilities, and the number of patients worried about their future conditions related to urination was 168 patients (57.3%) at the urology clinics and 232 patients (43.7%) at the other medical facilities. Although both numbers were significantly higher at the urology clinics, the other medical facilities had patients who certainly had difficulties and were worried about their future conditions related to urination.

The number of patients who wished to acquire medical knowledge about urinary problems was 185 (65.8%) at the urology clinics and 269 (53.5%) at the other medical facilities. The number was significantly higher at the urology clinics.

#### Interpretation of results

Urination problems are commonly observed in patients who were cared even at no-urological medical facilities although the incidence of urination problems was higher in the urology clinic compared to the other medical facilities. Also, the desire of patients for seeking for medical information and assistance for their urination problems was high not only at urologic clinics, but also at other facilities with non-urological specialties.

#### Concluding message

Urinary problems are frequent and high among patients at medical facilities affiliated with the Kyoto City. The results will be used to help develop adequate medical and nursing care systems by 2025 when the aging population will reach its peak as the individuals from the baby-boom generation reach 75 years or older.

## Figure 1: Questionnaire

We would like to ask you about urination during the past 1 month.

1. Age 2. Sex 3. Residence

4. Disorders prompting you to visit the hospital: hypertension, diabetes mellitus, gastrointestinal disease, hyperlipidemia, dementia, muscular or osteoarticular disorder, eye disease, skin disease, nose disease, ear disease, cerebral infarction Multiple answers are allowed

5. Frequency of urination: Daytime frequency: 7 times or less, 8 times or more

Night-time frequency: 0, 1 time, 2 times, 3 times or more

6. Volume of single urination: Less than 100 ml, approximately the same as the volume of a glass (100 to 200 ml), large (200 ml or more)

7. Symptoms:

- ) Sudden urge for urination
- ) Short interval between urination
- ) Difficulty to urinate
- ) Coughing or sneezing caused urinary incontinence
- ) Pain during urination
- ) Sensation of residual urine after urination
- Multiple answers are allowed

8. Do you have any difficulty related to urination?

9. Are you worried about your future condition regarding urination?

10. Do you want to acquire medical knowledge about urination?

11. What source do you frequently use to obtain information?

Friends, television programs, magazines, newspapers, lectures, others

12. We are currently planning a ward-wide survey as part of an administrative service. Would you participate in this survey?

Disclosures

**Funding:** None **Clinical Trial:** Yes **Registration Number:** Kyoto Nakagyo-seibu Medical association **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Kyoto Nakagyo-seibu Medical association **Helsinki:** Yes **Informed Consent:** Yes