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RESEARCH

SOCIODEMOGRAPHIC FINDINGS AND CARE GIVER FACILITIES OF PATIENTS ADMITTED TO KOCAELI UNIVERSITY, MEDICAL SCHOOL, DEMENTIA OUTPATIENT

ABSTRACT

Objectives: We report sociodemographic findings, care giver features and traditional factors effecting Alzheimer's disease patients admitted to Kocaeli University School of Medicine, dementia outpatient during one year period.

Patients and Methods: Twenty-four patients clinically diagnosed with probable Alzheimer's disease using NINCDS/ADRDA criteria were attended to the study. We set up a questionnaire to assess sociodemographic properties of Alzheimer's disease patients. Questionnaire included personal information, (ii) medical and lifestyle factors (iii) activities of daily living and instrumental activities of daily living tests and (iv) care giver properties.

Results: Findings about sex and smoking were in opposite direction with similar across studies. All the care givers were relatives of patients. None of them was living in a national social service.

Conclusion: In Turkey, it is a kind of tradition giving care to their elderly relatives. In future countries may prefer the care giving to these patients in their social environment to avoid economic burden as in Turkey.

Key words: Sociodemographic findings, Alzheimer's disease, Care giver, Tradition.

ARAŞTIRMA

KOCAELİ ÜNİVERSİTESİ TIP FAKÜLTESİ DEMANS POLİKLİNİĞİNE BAŞVURAN HASTALARIN SOSYODEMOGRAFİK ÖZELLİKLERİ VE BAKIM ŞARTLARI

ÖZ

Amaç: Kocaeli Üniversitesi Tıp Fakültesi Nöroloji AD Demans Polikliniği'ne bir yıl boyunca başvuran Alzheimer hastalarında sosyodemografik bulguları, bakıcı özellikleri ve geleneksel faktörlerin hastalığa etkilerini değerlendirmeyi amaçladık

Hastalar ve Yöntem: NINCDS/ADRDA kriterlerine göre muhtemel Alzheimer hastalığı (AH) tanısı alan yirmi dört hasta çalışmaya dahil edildi. Alzheimer hastalarının sosyodemografik özelliklerini değerlendirmek için bir anket formu oluşturduk. Anket formu ; (i) kişisel bilgiler, (ii) tıbbi bilgiler ve yaşam tarzını etkileyen faktörler, (iii) günlük yaşam aktiviteleri ve enstrümantal günlük yaşam aktiviteleri testleri ve (iv) bakıcılara ait özellikler başlıklarını içermekteydi.

Bulgular: Cinsiyet ve sigara ile ilgili veriler incelendiğinde benzer çalışmaların aksine bulgular elde edildi. Bakıcıların tümü hastaların akrabalarıydı ve hiçbir hasta bir sosyal bakım merkezinde yaşamıyordu.

Sonuç: Türkiye'de yaşlılara akrabaları ve yakınları tarafından bakılması, bir tür geleneksel yaklaşımdır. Yakın gelecekte pek çok ülke özellikle demans hastalarında bakıma bağlı ekonomik yükü azaltmak için, Türkiye'de olduğu gibi hastaların kendi sosyal çevrelerinde bakılmasını tercih edebilir.

Anahtar sözcükler: Sosyodemografik özellikler, Alzheimer hastalığı, Bakıcı, Geleneksel yöntemler.
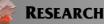
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INTRODUCTION

Alzheimer's disease (AD) that is the most common cause of dementia in the elderly is a neurodegenerative disorder, representing over 50% of all dementia cases (1). Clinical findings of AD are characterized by a progressive decline in memory and cognitive function which leads to personality and behavioral changes causing impairment of daily living quality. Pathophysiology of AD is well known but epidemiological studies have failed to identify a single cause. Although multiple risk factors such as increasing age, positive family history, sex differences, education and other environmental factors have been investigated because of their connection with proposed causes of AD but relationship between environmental factors such as care facilities, relative relationships, occupations, financial income and other sociodemographic features in a special community did not very well studied (2). In this study we reported cultural, economic and other sociodemographic characteristics of the patients with AD admitted to Kocaeli University hospital Neurology Department AD and related disorders outpatient clinic.

PATIENTS AND METHODS

The study sample consisted of 24 patients aged 65 years and older who were consequently examined at Kocaeli University Neurology Department for dementia between 2003-2004 and diagnosed as possible AD according to National Institute of Neurological and Communicative Disorders and Stroke-Alzheimer's Disease and Related Disorders Association (NINCDS-ADRDA) criteria, the standard clinical research protocol for diagnosis of AD (3). Neurological examination, cognitive function tests, informant interview, laboratory screening and cranial CT and MRI were used in the diagnosis of AD. For cognitive evaluation mini mental state examination (MMSE), clock drawing tests, daily living activities, instrumental daily living activities tests were used (4-6).

A detailed risk factor and socio demographic properties questionnaire was set up for sociodemographic assessment. Questionnaire was included four main categories:

(i) Personal information
Age, sex, date of diagnosis, education level, occupation, monthly income, social security, marital status, living place, occupational factors, responsible person for home care.
(ii) Medical and life-style factors
Genetic factors (family history of dementia, atherosclerosis, Parkinson's disease, thyroid disease, leukemia). Medical history (surgery, general anesthesia, heart disease, stroke, hypertension, diabetes mellitus, depression, migraine).

Life-style factors (medications (NSAID, analgesics, antacids), tobacco and alcohol use).
(iii) Activities of daily living and instrumental activities of daily living tests.
(iv) Care giver properties

Physician interviewed with patients and their care givers together in order to obtain correct information. Questionnaire was done by the same physician and care givers.

RESULTS

Two thirds of the patients (n=16, 66%) were male. The mean age of the patients was 70 ± 6.9 years. MMSE scores were matched by sex and age. Correlation between MMSE and age was not significant. There were not significant differences in MMSE scores between males and females, according to their clinical stage. In family history part of the questionnaire, dementia in 9 (39.1%) and thyroid disease in 11 (45.8%) patients were found. Hypertension (70.8%) arthritis (41.7%), and depression (33.3%) were significantly higher when compare with other diseases in questionnaire. Fifteen of the patients had undergone surgery and general anesthesia. Nineteen (79.1%) of patients did not smoke anytime, four patients were ex-smoker and one was current smoker.

Seven patients (29.2%) never attend to school. One of these patients was able to read and write. Fourteen patients (58.3%) were housewife, 4 of the 8 retired patients had been worked as teacher. Two patients were still working; one is a teacher and the other is a shop owner. With MMSE score of 22 and 20, respectively. Only eighteen patients had monthly income (monthly income of all the patients listed in Table 1), 9 of them had income under the level of annual income per capita (according to State Institute of Statistics Prime Ministry of Republic of Turkey Gross National Product per capita 3383 USD in 2003 in Turkey). All the patients had health insurance supported by government. Government supports the patients who did not have insurance, owing to their first degree relatives.

All the patients were living in his/her or his/her relatives' house. None of them were living in a national social service. Care givers of the patients were all their relatives. Eight care givers were patients' husband or wife, six were their daughters, two was a son and two was daughter in-law.

DISCUSSION

Many studies have been published about sociodemographic findings and risk factors of AD in different countries (7). To the best of our knowledge, traditional effects and so-

Table 1— Monthly İncome Groups of the Patients[a]

Monthly Income Groups*	Number of Patients	Percentage
No monthly income	6	25.0
170-300 USD	10	41.7
301-500 USD	5	20.8
501-1000 USD	3	12.5
Total	24	100.0

Maximum income = 919 USD, Mean (SD) =255 (216) USD
Mode = 0 USD Median = 238 USD

*Adjusted for average exchange rate in 2003, according to Central Bank of the Republic of Turkey   (Average exchange rate, 1 USD= 1.415.000 Turkish Liras)
[a]Annual Gross Domestic Product (GDP) per capita was 3383 USD in 2003 in Turkey.

cial factors such as care givers and relative specialties have not been reported before. In this observational cross-sectional study we discussed general view of social and demographic findings of the patients admitted to Kocaeli University Medical School during one year period.

Recent studies suggested that there was a positive correlation between family history of dementia, female gender, low levels of education, smoking and AD (8). It has been reported that dementia effects up to 22% of women and 18.5 % of men over age of 70 (9). Although female gender and smoking have been reported as an important risk factor in Eurodem study, in our study two thirds of the patients (n=16, 66%) were male and majority of the patients never smoked (79.1%) anytime. We also found that MMSE scores were not significantly associated with sex.

The effect of migraine and headache on AD is also controversial. Previous studies have shown that these two factors significantly reduce the risk of AD (2,10). In contrast to these reports, it has been reported that migraine and headache increases the risk of AD in women in another sociodemographic study (7). Unlike to recent studies we could not find any association between migraine and AD. Of the medical factors, only history of hypertension, arthritis and depression were significantly high in our patients. We thought that high incidence of these diseases might be due to elderly age.

There is a negative correlation between AD and years of education. More detailed analyses suggested that the significant association between AD and low education level was confined to women (2). In our study majority of the patients did not know reading and writing. In Turkey adult literacy rate was 87.5% in 2002 (male 95.3%, female 79.9%). In addition low level education is more common in people over age of 65. Moreover most of the elderly women do not know read and write.

It is well known that deterioration of daily living activities in AD patient effect their occupation. Most of the patients had to give up their occupation if it depends on intact cognitive functions, such as being a teacher. It was interesting that two of our patients were still working. Since patients with dementia are unaware of their illness, most of them do not accept themselves as demented. In Turkey most of the relatives of patients with dementia have the idea that this situation is normal for an elderly person or do not realize the cognitive regression of their parents. In Turkey, most of the primary caregivers of the patients with dementia are their relatives. Therefore, presenting further detailed information about the Alzheimer's disease and other dementias to the relatives of the patients can help them to learn more about this progressive disease.

In other countries long term care of these patients are belong to special or national institutional care services. In Turkey, it is a kind of tradition giving care to their elderly relatives. In addition, national or special social care services are very rare in our country and there are only a few in developed towns of Turkey. In Kocaeli there is no social care facility for AD patients. In recent years instead of long term institutional care, care of AD patients at home is a rising trend in Europe (9). The incidence of AD increases with age. Studies have shown that, as the population ages, the number of AD patients' economic burden on National Health services and social services will rise (11,12). Because long term care is costly than the drug treatment new politics are improving about care facilities (13). Cares, in the community by informal care givers who occupy a central role in maintaining the patients are one of this politics. In Turkey economic burden of AD patients impose on relatives of patients, because of lack of social care services and traditional affects in the community. In future since the number of dementia patients and economic burden will rise, care giving in the patient's social environment by their relatives can be a model for other countries. Because, AD is a medical and a social problem that affects patients and their relatives' daily life seriously we need new strategies for psychiatric support to caregivers and patients.

In conclusion, a major challenge for the future is the introduction of new strategies for care of AD patients. So we need other studies focusing on other social factors effecting clinical progress and care facilities of AD patients. Although this study has some limitations such as small sample size, we have suggested that care features and social network of AD patients as in Turkey can provide an option to caregiver and economic problems.

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