



MUSCULOSKELETAL PROBLEMS AND DRUG USE IN THE ELDERLY: PERSPECTIVE OF THE GENERAL PRACTITIONERS

ABSTRACT

Introduction: The elderly populates all over the world and in our country, demands of this population from health services are on the rise due to chronic diseases. Prevalance of osteoarthritis, osteoporosis and pain resulting from various musculoskeletal diseases are known to increase with age. Since improving national healthcare services through the enhancement of primary care is a major challenge in many countries; we aimed to investigate the perspective of the general practitioners (GPs) and the problems they encounter while dealing with musculoskeletal problems in the elderly population.

Materials and Method: 159 governmental primary health care centers were randomly chosen and involved in the study. The GPs were questioned on the types of health problems they frequently encounter in the elderly population, the groups of drugs they prefer, whether they perform intraarticular or intralesional injections, the type of drugs they prescribe for osteoporosis, the type of drug groups that satisfy their patients most, drugs that the patients might prefer according to the advice of nonmedics and the drugs that elderly patients tend to use without prescriptions.

Results: The most frequently used drugs for the musculoskeletal problems in the elderly were non-steroidal antiinflammatory drugs (NSAIDs), followed by COX-2 specific NSAIDs, and paracetamol. The drugs that satisfy patients most were COX-2 specific NSAIDs, followed by NSAIDs, corticosteroids and paracetamol. 90.4% of the patients demanded for prescription of the drugs that were advised by nonmedics. The GPs have observed that NSAIDs, antibiotics, vitamins and mineral preparations, cardiovascular system drugs were used by the patients without prescriptions.

Conclusion: The GPs are frequently involved in the care of elderly patients with painful problems. NSAIDs are the most frequently used medications for musculoskeletal pain problems. A wide range of medications are used by the elderly patients without prescription.

Key Words: General Practitioners; Musculoskeletal Disease; Anti-Inflammatory Agents, Non-Steroidal; Pain.

Ayçe ATALAY¹
Yeşim GÖKÇE KUTSAL²
Levent ÖZÇAKAR²



KISA RAPOR

YAŞLILARDA KAS İSKELET SİSTEMİ PROBLEMLERİ VE İLAÇ KULLANIMI: PRATİSYEN HEKİMLERİN PERSPEKTİFİ

Öz

Giriş: Yaşlı popülasyon tüm dünyada ve ülkemizde artmaktadır ve bu grup hastanın sağlık hizmetlerinden beklentileri kronik hastalıklarından dolayı yükselmektedir. Farklı kas iskelet sistemi hastalıklarına bağlı olarak osteoartrit, osteoporoz ve ağrı prevalansının yaşla birlikte arttığı bilinmektedir. Bu çalışmada birinci basamak sağlık hizmetlerinin güçlendirilmesi ile ulusal sağlık hizmetlerinin iyileştirilmesi pek çok ülkede temel hedef olduğundan; pratisyen hekimlerin görüşlerini olarak; onların yaşlı popülasyondaki kas iskelet sistemi problemleri ile ilgilenirken karşılaştıkları problemleri incelenmesi amaçlanmıştır.

Gereç ve Yöntem: Devlete bağlı olarak çalışan 159 birinci basamak sağlık merkezi rastgele seçilerek çalışmaya dahil edildi. Pratisyen hekimlere yaşlı popülasyonda hangi sağlık problemleri ile karşılaştıkları, tercih ettikleri ilaç grupları, intraartiküler veya intralezyonel enjeksiyon uygulamalarına yaklaşımları, osteoporoz tedavisinde reçetelendirdikleri ilaçlar, hasta memnuniyetinin en yüksek olduğu ilaçlar, yaşlı hastaların sağlık personeli dışındaki kişilerden aldıkları tavsiyeler üzerine kullanma eğiliminde oldukları ilaçlar ve reçetesiz olarak kullandıkları ilaçlar soruldu.

Bulgular: Yaşlılarda kas iskelet sistemi problemleri için en sık kullanılan ilaçlar; steroid olmayan anti-inflamatuar ilaçlar (SOAİ), onları takiben COX-2 spesifik SOAİ ve parasetamoldü. En fazla hasta memnuniyeti COX-2 spesifik SOAİ ile, takiben SOAİ, kortikosteroidler ve parasetamol ile izlendi. Hastaların % 90.4'ü sağlık dışı kişilerden aldıkları tavsiyeye göre reçete talebinde bulundu. Pratisyen hekimler SOAİ'lerin, antibiyotiklerin, vitamin ve mineral preparatlarının ve kardiyovasküler sistem ilaçlarının reçetesiz olarak kullanıldığını gözlemlemişlerdi.

Sonuç: Pratisyen hekimler ağrı problemleri olan yaşlı hastaların bakımında sıklıkla yer almaktadır. SOAİ'ler kas iskelet sistemi ağrılarında en sık kullanılan ilaçlardır. Yaşlı hastalarda geniş bir yelpazedeki ilaç gruplarında reçetesiz olarak kullanım sözkonusudur.

Anahtar Sözcükler: Pratisyen Hekim; Kas ve İskelet Sistemi Hastalıkları; Anti-inflamatuar İlaç, Non-Steroid; Ağrı.

İletişim (Correspondance)

Ayçe ATALAY
Acıbadem Üniversitesi Tıp Fakültesi Fiziksel Tıp ve
Rehabilitasyon Anabilim Dalı İSTANBUL
Tlf: 0216 492 98 00
e-posta: ayce.atalay@acibadem.edu.tr

Geliş Tarihi: 13/10/2009
(Received)

Kabul Tarihi: 02/12/2009
(Accepted)

¹ Acıbadem Üniversitesi Tıp Fakültesi Fiziksel Tıp ve Rehabilitasyon Anabilim Dalı İSTANBUL
² Hacettepe Üniversitesi, Tıp Fakültesi, Fiziksel Tıp ve Rehabilitasyon Anabilim Dalı ANKARA



INTRODUCTION

The median age of the world's population is increasing because of a decline in fertility and a 20-year increase in the average life span during the second half of the 20th century (1). The elderly populates all over the world and in our country, demands of this population from health services are on the rise due to chronic diseases. These problems lead to functional impairments and reduce quality of life. Prevalance of osteoarthritis, osteoporosis and pain resulting from various musculoskeletal diseases are known to increase with age. Painful states of the musculoskeletal system constitute more than 2/3 of painful states in primary care (2). Since improving national healthcare services through the enhancement of primary care is a major challenge in many countries (3); we aimed to investigate the perspective of the general practitioners (GPs) and the problems they encounter while dealing with musculoskeletal problems in the elderly population.

MATERIALS AND METHOD

159 governmental primary health care centers were randomly chosen and involved in the study. A questionnaire was sent by postage and asked to be returned. Results that are returned from 53 centers were evaluated. In this questionnaire the practitioners were questioned on the types of health problems they frequently encounter in the elderly population, the groups of drugs they prefer, whether they perform intraarticular or intralesional injections, the type of drugs they prescribe for osteoporosis, the type of drug groups that satisfy their patients most, drugs that the patients might prefer according to the advice of nonmedics and the drugs that elderly patients tend to use without prescriptions.

RESULTS

The frequency of the musculoskeletal problems that the GPs reported were: osteoarthritis 84.9%, osteoporosis 60.4%, low back pain 58.5%, generalized pain 50.9%, headache 28.3% and back pain 26.4%. The most frequently used drugs for the musculoskeletal problems in the elderly were non-steroidal antiinflammatory drugs (NSAIDs) (55.8%), followed by COX-2 specific NSAIDs (32.7%), and paracetamol (11.5%). Most of the GPs (96.2%) did not perform intraarticular or intralesional injections. The drugs that satisfied their patients most were COX-2 specific NSAIDs (44.2%), followed by NSAIDs (38.5%), corticosteroids (34.6%) and paracetamol (1.9%). The drugs used for treatment of osteoporotic

patients were calcium and vitamin D preparations (82%), bisphosphonates (12%) and calcitonins (6%). 90.4% of the patients demanded for prescription of the drugs that were advised by nonmedics. The GPs have observed that NSAIDs (96.2%), antibiotics (49.1%), vitamins and mineral preparations (17%), cardiovascular system drugs (1.9%) were used by the patients without prescriptions.

DISCUSSION

General practitioners commonly encounter osteoarthritic and osteoporotic elderly patients. In a study concerning pain patterns of musculoskeletal disorders conducted in three primary care centers in Greece revealed that the prevalance of the reported musculoskeletal symptoms was related to increasing age for neck, elbow, low back, hip and knee pain (4). In another study investigating the epidemiology and management of pain in Italian general practice it was concluded that the largest category of diagnoses was "arthropathies and related disorders", followed "dorsopathies" and "rheumatism excluding the back" (5). Similar to these findings, in our study pain due to osteoarthritis, low back and back were among the commonly reported musculoskeletal pain problems.

NSAIDs are the most frequently used medications for musculoskeletal pain problems. It was notable that NSAIDs were preferred over paracetamol in our study group despite the fact that acetaminophen is recommended in the osteoarthritic elderly group and can be taken safely in doses up to 4 g/day (6). Similarly more than half of the prescriptions of Italian GPs were for NSAIDs alone (5). In a study by Keys et al. it was reported that GPs prefer oral NSAIDs in conditions such as osteoarthritis (7). However, in a recent review about clinical approach to managing musculoskeletal pain, local treatments rather than systemic treatments were advised where feasible (8). However in our study group intraarticular and intralesional injections were seldomly employed. COX-2 specific NSAIDs seem to satisfy the patients most but, high satisfaction rate with the use of corticosteroids needs attention. A great proportion of the elderly patients demand for prescriptions that are advised by nonmedics and NSAIDs are frequently used with and without prescriptions (9,10).

It is a common fact that many physiological changes, psycho and motor regression, mental changes, nutritional disorders and many systemic diseases become more prevalent among older persons. Age related alterations in metabolism and the excretion of medications increase the risk of adverse drug events in the elderly. Inappropriate prescription practi-



ce entails increased burdens of impaired quality of life and drug related morbidity and mortality. Interventions in the primary care to reduce chronic NSAID usage would be cost effective in the elderly population. Safety of drug use, which is defined by the maximum efficacy, safety of drug and its convenience for the patient and cost-benefit relation, is significant for all age groups. However, this is much more so for geriatrics. Therefore, the GPs, all the physicians and the other health professionals working in this chain should pay great attention for safe use of drugs in the elderly group (11).

ACKNOWLEDGMENTS

We would like to thank GPs that has helped us to gather information. This study was accomplished during the residency of AA in Hacettepe University, Faculty of Medicine, Department of Physical Medicine and Rehabilitation.

REFERENCES

1. Centers for Disease Control and Prevention (CDC). Trends in aging-United States and worldwide. *MMWR Morb Mortal Wkly Rep* 2003;52:101-4.
2. Hasselström J, Liu-Palmgren J, Rasjö-Wraak G. Prevalance of pain in general practice. *Eur J Pain* 2002;6:375-85.
3. Marinos G, Giannopoulos A, Vlasis K, et al. Primary care in the management of common orthopaedic problems. *Qual Prim Care* 2008;16:345-9.
4. Antonopoulou M, Antonakis N, Hadjipavlou A, et al. Patterns of pain and consulting behavior in patients with musculoskeletal disorders in rural Crete, Greece. *Fam Pract* 2007;24:209-16.
5. Koleva D, Krulichova I, Bertolini G, et al. Pain in primary care: an Italian survey. *Eur J Public Health* 2005;15:475-9.
6. Graham GG, Scott KF, Day RO. Tolerability of paracetamol. *Drug Saf* 2005;28:227-40.
7. Keys J, Beardon PH, Lau C, et al. General practitioners' use of non-steroid anti-inflammatory drugs in Tayside and Fife regions. *J R Soc Med* 1992;85:422-5.
8. Hunt RH, Choquette D, Craig BN, et al. Approach to managing musculoskeletal pain: acetaminophen, cyclooxygenase-2 inhibitors, or traditional NSAIDs? *Can Fam Physician* 2007;53:1177-84.
9. Arslan S, Atalay A, Gökçe-Kutsal Y. Drug use in older people. *J Am Geriatr Soc* 2002;50:1163-8.
10. Esengen S, Seçkin U, Borman P, Bodur H, Kutsal YG, Yücel M. Drug consumption in a group of elderly residents of a nursing home: relationship to cognitive impairment and disability. *J Am Med Dir Assoc* 2000;1:197-201.
11. Gökçe-Kutsal Y. Polypharmacy in elderly. *Turkish J Geriatrics* 2006; Rationale Drug Use in Elderly, Special Issue: 37-44.