

Incidence of rheumatoid arthritis and musculoskeletal diseases in the elderly population

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Abstract

The incidence of rheumatoid arthritis (RA) and musculoskeletal diseases was determined in random sample of 424 people aged 65 to 85 years. detailed clinical examinations were carried out in about two years between 2010-2011. a total of 3 men and 5 women fulfilled the 1987 American college of Rheumatology criteria for RA, so the incidence of RA was highest in subjects aged 65 years and tended to decline with age, no RA cases were found in men aged 80 years or more, the incidence of musculoskeletal diseases, defined as lack of an extremity or restriction of mobility in a joint or the spine, was high in the highest aged group.

حدوث امراض المفصل الرثوي وامراض الجهاز الحركي في كبار السن

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المخلص

بعد اجراء الفحص العشوائي على 424 شخص من كلا الجنسين ضمن الفئات العمرية ما بين 65 سنة الى 85 سنة والتي تمت خلال سنتين لعام 2011 و 2012 في مستشفى تكريت التعليمي وفي عيادتي الخاصة ، تبين حدوث 8 مصابين بمرض الالتهاب الرثوي بينهم 3 رجال و 5 نساء وتم تشخيصهم حسب معيار الكلية الامريكية لامراض المفاصل لعام 1987. وان اغلب حدوثها ضمن الفئة العمرية لعمر 65 سنة ونقل مع التقدم في السن بحيث لا توجد اصابات ضمن الفئة العمرية 80 الى 85 سنة وخاصة بالنسبة للرجال. اما امراض الجهاز الحركي والتي نقصد بها نقصان او تحدد الحركة في المفاصل او العمود الفقري تكون نسبة حدوثها اكثر ضمن الفئة العمرية الكبيرة.

Introduction

Rhumatoid arthritis (RA) is a chronic inflammatory joint disease found in almost all population.it affects both genders,but female preponderance is typical. the incidence of arthritis satisfying the simplified 1958 American College of Rhumatology (ACR)criteria for definite RA or the 1987 classification criteria for RA is approximately 0.5-1.0% among adults in most western countries {1,2,3,4}. Studies on the incidence of RA in different age groups show a progressive increase in the number of cases with advancing in age.both decreased {5,6} and stable{7,8}incidence have been reported in old age groups. However, data on the incidence of RA in the highest age groups are scanty thus far.in order to fill this gab in knowledge,we analyzed the data of an ongoing population-based study to determine the incidence of RA and overall musculoskeletal diseases specifically in the elderly population.

The aim of the study

Is to study the incidence of rheumatoid arthritis and musculoskeletal diseases in the elderly population.

Materials and methods

A total of 424 subjects (165 men and 259 women) were examined about two years between 2010 and 2011 in Tikreet teaching hospital and my private clinic. the diagnosis of RA assisted according to the 1987 American college of rheumatology criteria{2}.the diagnosis of the musculoskeletal disease depends on lack of an extremity or restriction of mobility in a joint or the spine.

Results

All the subjects with RA were diagnosed, about 8 subjects were affected with RA (table 1). four subjects (1 men,3 women) of the 65 years old, two (one men, one women)75 years old, and one(one women ,0 men) in 80 years old and one (one women ,0 men) in 85 years old had RA. thus the highest incidence of RA in males was 1% in 75 years old, and in females 3% in 65 years old. musculoskeletal diseases were found in 202 of the 65 years olds (95 men,107 women) 24,in 75 years olds (25 men,50 women) 23, in 80 years old(25men,52 women) 28,and in 85 years olds (21 men,50 women) 63 .musculoskeletal diseases were very common in elderly people, reaching 18% among 85 years olds. the differences between the age groups in prevalence of musculoskeletal diseases were insignificant.

Table(1):- incidence in percent of Rheumatoid arthritis and musculoskeletal diseases by age & gender

Age group years	Number of subjects		Rheumatoid musculoskeletal			Arthritis disease		
	men	women	men	Women	mean	men	Women	mean
65-74	95	107	1	3	2	12	12.7	12.3
75-79	25	50	1	1	1	12.8	9.9	11.35
80-84	25	52	0	1	0.5	14	14.2	14.1
More than 85	21	50	0	1.3	0.65	19.2	16.8	18

Discussion

The data show that the incidence of musculoskeletal diseases tended to increase and that of RA to decrease in old age. Now the question arises about the specificity of RA diagnosis in oldest groups. It should be noted that all RA cases were diagnosed by a specialist before the study and reanalyzed according to ACR criteria. Both excess mortality of aged subjects with RA and decrease in the incidence of RA in old age could explain these changes {9,10,11}. Unfortunately, the small number of cases did not allow us to make a survival analysis. In accordance with our results, the incidence of RA tended to decrease from 2.2% in the 60-69- years age group to 1.7% in people aged ≥ 70 in another population-based Finnish study by Hakala et al. {6}. In a population survey among noninstitutionalized people (the Mini-Finland health survey), the prevalence in these two age groups were 1.6 and 1.5%, respectively {5}. In a study from Rochester, USA, in 1955-1985 the incidence of RA rose with increasing age from 35 to 85 years of age, after which it dropped sharply {11}. On the other hand, some studies have detected no decline in the incidence of RA in the oldest people. In a study from Oslo, Norway, the incidence of RA in people aged 60-69 years and 70-79 years remained slightly above 1% {7}, and Boyer et al. reported a stable 2.6% incidence of RA in Inupiat Eskimos in the age groups of 60-69 and ≥ 70 years {8}. The lack of systemic hand radiographs and determination of rheumatoid factor may hamper interpretation of this epidemiological survey. On the other hand, the clinical examination in this study were carefully standardized. Rheumatoid factor determinations are of limited value for either classification or diagnostic purposes for RA in the elderly {12}.

This survey was planned to assess the overall health status of elderly people, not to search specifically for RA. Thus the number of subjects was relatively low in each age group. The participation rate in our study was high but proportionately lower in the age groups older than 65. The true incidence of RA in the nonparticipating group remains unclear. However, all the subjects living in care were examined. Therefore, the incidence figures are more likely overestimates than underestimates.

Conclusion

The present study concludes that the incidence of RA less 1% in the elderly and is highest in subjects aged 65 years exceeds 1%. In men aged 80 years or more, RA is rare. Excess mortality in RA is the likely reason for the low incidence of RA in the very old age. The overall prevalence of musculoskeletal diseases in the elderly is high and tends to increase with age.

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