

# ACHES AND PAINS AMONG SINGAPORE ELDERLY

C Lau-Ting, W O Phoon

## SYNOPSIS

As part of a comprehensive survey of all the institutionalised elderly in five non-government homes in 1976–78, it was found that "arthritic pain" affected 49% of the 375 respondents. A large proportion of these afflicted elderly did not complain about this ailment to the physicians involved in this survey. The females and the older-old appeared to have a greater share of this problem.

A review of local literature and data on arthritis and rheumatism are presented together with a comparison with some overseas findings. The implications of the present study is discussed in view of the recommendations made by WHO and the UN for the aged in 1982 and 1984.

SING MED J. 1988; 29:164–167

## INTRODUCTION

The Singapore and Malaysian medical publications on arthritis and rheumatism have been numerous(1–17), although they are mostly based on special groups like rheumatoid arthritis, hospital or rheumatology clinic samples. Plenty of review articles on rheumatology were written since WHO declared 1977 as the "World Rheumatism Year"(8). The Academy of Medicine in Singapore(16) and the general practitioners in Malaysia(17) even had rheumatology as their special publications in 1983 and 1984 respectively, carrying a total of 27 citations which were mostly review articles or on very specialised aspects of rheumatoid arthritis.

In Singapore, the national morbidity survey(18) shows that "arthritis and rheumatism" affected 0.96% of males and 3.28% of females. The prevalence increased dramatically with age to 20.4% among those aged 65 years and above. A large proportion of the affected did not resort to medical doctors for this discomfort. The national survey of senior citizens in the community(19) discovered that "bone and/or joint pain" was experienced by 36.6% of those 55 years and above during the preceding two weeks among the 76% who responded to the survey.

Routinely collected government hospital statistics (20,21) indicate that about half of the hospitalised arthritic belonged to the rheumatoid arthritis group. This probably explains the greater coverage by the local writers on this topic. The age-specific admission rates showed an increasing trend of hospitalisations

for arthritis with advancing age. Over the recent 10 years, the total hospital discharges for arthritis (20–24) has tripled to 1315 per annum. The total outpatient attendance for similar disorders amounted to almost 30,000 per year and this is on an upward trend also.

Based on 422 medical consultations by 150 institutionalised elderly, it was reported that only 5.2% were for arthritis(25). This is probably a reflection of gross under-reporting by the elderly. It is hoped that the present report will shed more light on this aspect.

## METHODS AND MATERIAL

As part of an extensive survey of 630 institutionalised elderly in five non-government homes for the aged (60 years and above), the residents were systematically interviewed by experienced field investigators and seen by a team of physicians for their complaints and for physical examination. 91 of these elderly were excluded because of extreme ill-health, hospitalisation, death or communication barriers. 150 did not complete the survey for various reasons. Thus, only 61.7% of the total sample were studied in depth. The study started in 1976 and was completed in 1978. It was cross-sectional in approach and included two homes which were for aged-sick which constituted 26% of the sampling frame.

Statistical analysis for those included in the survey was performed with the SPSS data processing facility through the IBM computer mainframe of the National University of Singapore.

A comparison of those partially-studied with those fully-studied reveals that the "missing" cases were under represented by males and the older-old (Tab.1). Those elderly who were totally excluded were similar in these basic profile as those partially-studied. Chinese predominated in all the three groups. Among the excluded group there were 3% non-Chinese, the partially-studied group had 11% non-Chinese while there were 16% non-Chinese among the fully-studied group.

---

Department of Community,  
Occupational and Family Medicine  
Lower Kent Ridge Road  
National University of Singapore  
Singapore 0511

C Lau-Ting, MBBS, MSc(PH)

W O Phoon, AM, MBBS, FRCP, FRCPE, FRCPG, FRFPM,  
FFCM, FFOM, DCH, DIH, DIHSA, Hon FACOM

---

**TABLE 1  
COMPARISON OF RESPONDENTS WITH PARTIAL-RESPONDENTS**

	Respondent	Partial-respondents
Age: % 80 years & above	27.8	51.3
Sex: % Males	47.7	30.0
Race: % Non-Chinese	16.5	10.7

**TABLE 2  
COMPLAINTS OF LIMB PAIN OR BACKACHE  
TO DOCTOR VS RESPONSE TO Q49**

	Q49: Do you have aches and pains often?	
	No	Yes
Complaint = No	191 (50.9)	126 (33.6)
Complaint = Yes	17 ( 4.5)	41 (10.9)

Figures in parenthesis refer to total per cent  
% arthritic = (33.5 + 4.5 + 10.9)% = 49.0%

**TABLE 3  
THE PREVALENCE OF ARTHRITIS\* BY AGE AND SEX  
(%)**

	Males	Females
Age 60-69 yr	40/57 (29.8)	15/27m(44.4)
70-79 yr	55/91 (39.6)	36/94 (61.7)
80+ yr	19/35 (45.7)	26/70 (62.9)
Total	114/183 (37.7)	77/191 (59.7)
Chi-sq. P valve	0.2730	0.2167

\*arthritis = complained of limb pain or backache  
and/or responded positively to Q49

## RESULTS

Cross tabulation of the complaints of limb pain or backache with the response to screening question (Q49: Do you have aches and pains often?) shows an interesting distribution (Tab.2). While only (4.5% + 10.9%) = 15.5% of the total respondents complained of such pain to the survey doctors, (33.6% + 10.9%) = 44.5% responded positively to Q49 or to the non-medical field workers. Taken together, the prevalence of "arthritis" is 49.0%.

The prevalence of "arthritis" increased with age in both sexes even though it is not statistically significant which was probably due to the effect of sample size. As a whole, females (59.7%) were more prone than males (37.7%) to having this problem (Tab.3).

## DISCUSSION

Not surprisingly, the prevalence of "aches and pains" is higher in the community elderly in Singapore. The excess of females with this symptom is consistent with those reported in the United States of America and Japan(26,27) (Tab.4).

All local statistics considered, this problem seems to be increasing in the community, outpatient clinics and hospitals over the recent years. The institutionalised elderly appears to have a greater share of this problem locally.

In conjunction with the global declaration to attain "Health for All" by the year 2000 and the international focus on the disabled in 1980 and 1981 respectively, a special working group was convened to find ways of "Prevention of Disability in the Elderly". Of particular importance are the two international events in 1982, namely World Health Day with the theme "Add Life to Years", and the United Nations World Assembly on Aging(28). The WHO gerontological study in eleven European countries, involving 16 centres, is another encouraging initial step towards defining means of prevention(29). This regional European study was mainly community-based and like many geriatric studies they encountered response rates as low as 30% in some centres. The prevalence of "aches and pains" in their joints and back over the preceding two weeks ranged from 10% to 70%. Female elderly were also noted to be more prone to "aches and pains" although there was no marked increase of this symptom among the older-old.

The WHO scientific group on the epidemiology of aging(30) noted that it is important to appraise the associated disability and to identify treatable pathology in addition to estimating morbidity. Similarly, in our effort towards promoting graceful twilight years, it is hoped that the present findings and discussion will stimulate others to ascertain the extent of the associated disability and look for means to even prevent this very common companion of our senior citizens.

**TABLE 4**  
**THE PREVALENCE OF ACHES AND PAINS AMONG ELDERLY**

Region:	Singapore		USA**	Japan
Sample:	N = 5538	N = 389*	N = 3192	N = 366
Setting :	Comm.	Institution	Community	Community
Male :	na	37%	33%	43%
Female:	na	58%	44%	53%
Average	37%	49%	38%	48%
Reference:	MOSA (1983)	This study 1976-1978	Steward et al (1982)	Koganei (1983)
Cross-reference		—	(27)	(26)

na : not available

comm. : community or non-institutionalised

\*\* : using at least 1 type of analgesic drugs

\* : Q49 = YES OR/AND COMPLAINT = YES

The tendency of elderly to under-report this problem to their physicians and their high non-response rate to geriatric survey may be a reflection of "acceptance" or "despondence". On the other hand, because many elderly may have multiple problems, one needs to prioritize their needs and handle them accordingly. "Aches and pains" may be a common companion of many elderly but there may be other problems that are more disturbing. Acceptance of rheumatism may not be all that bad. However, one should not deny them a more comfortable life if it can be easily done.

#### ACKNOWLEDGEMENT

Our deepest gratitude goes to the five homes that participated in the survey, the field staff who interviewed the residents, and to many others who helped in various ways.

The authors also extend their appreciation to Miss Joyce Lee for typing the manuscript and to Dr. Anne Merriman for her advice in improving the script.

#### REFERENCES

- Burns NP: The use of butazolidine in gonococcal arthritis. *Med J Malaysia* 1956; 10(4):313-9.
- Burns-Cox CJ: 33 cases of acute arthritis in Sabah. *Med J Malaysia* 1964; 19(1):25-9.
- Mah GK. Clinical trial of brufen in rheumatoid arthritis. 4th proceedings of the Singapore Malaysia Congress of Medicine, 1969:486-8.
- Lim CH, Toh CCS: Chronic post-rheumatic fever arthritis (Jaccord's) — Report of 2 cases. *Sing Med J* 1974; rs:227-30.
- Bose K, Tay CH. Clinical trial of Ibuprofen (Orudis). Proceedings of the Symposium on the Pharmacological Basis of Therapeutics in Rheumatology & Ibuprofen, 1976:28-31. (Third SEAPAL Congress).
- Ng PL, Sinniah R: A case of "rheumatoid arthritis" with submassive liver necrosis. *Singapore General Hospital Bulletin* 1976; 4(2):38-45.
- Tay CH: Rheumatoid arthritis in Singapore, a clinical trial. *Sing Med J* 1976; 17:160-6.
- Tay C H: Rheumatoid arthritis. *Nursing J Singapore* 1977; 70-3.
- Tay CK, Chacha PB: Open pilot-study in patients with rheumatoid arthritis receiving 2-(3-Benzoylphenyl) proprionic acid (Orudis 19583RP). *Sing Med J* 1977; 18:112.
- Chacha PB: Role of surgery in rheumatoid arthritis. *Med Progr* 1979; G: 73-91.
- Tay CH: Rheumatic disease pattern and treatment methods in Singapore. *Asean J Clin Sci* 1980; 1(3):189-7.
- Thai AC Yeo PP, Yap HK, Low L P: Mitral valve prolapse, hypothyroidism & rheumatoid arthritis. *Sing Med J* 1981; 22(1):38-41.
- Feng PH: Therapeutic update — Clinical strategy in rheumatoid arthritis. *Sing Med J* 1982; 23:344-8.
- Hughes GRV: Special article on rheumatoid arthritis — An overview. *Sing Med J* 1982; 23:244-6.
- Sivapatham G, Gong NC, Pang T: Immunological studies in Malaysian patients with rheumatoid arthritis. *Asean J Clin Sci* 1982; 3(4):329-33.
- Surgery of rheumatoid arthritis. *Ann Acad Med, Singapore*, 1983: 153-285.
- Rheumatology. *The Family Practitioner* 1984; 7(1):5-48.
- Report of the 1st National Survey on Morbidity in Singapore, 1976/77. Research and Statistics Unit, Ministry of Health, Singapore, 1977.
- Report on the National Survey of Senior Citizens. Ministry of Social Affairs, Singapore. Government Printing, 1983.
- Inpatient Statistics 1972-4. Statistics on Discharges from Singapore Government Hospitals according to the 100-List. Compiled by Research and Statistics Unit, Ministry of Health, Singapore, 1976.

21. Inpatient Statistics 1975–6. Statistics on Discharges from Singapore Government Hospitals according to the 100-List. Compiled by Research and Statistics Unit, Ministry of Health, Singapore, 1977.
22. Inpatient Statistics 1978. Statistics on Discharges from Singapore Government Hospitals according to the 100-List. Compiled by Research and Evaluation Section, Ministry of Health, Singapore, 1979.
23. Patient Profile and Morbidity 1979. Compiled by Research and Evaluation Section, Ministry of Health, Singapore, 1980.
24. Patient Profile and Morbidity 1981. Compiled by Research and Evaluation Section, Ministry of Health, Singapore, 1982.
25. Phoon WO, Leong HK, Lee HP, Hughes K. Health and morbidity among residents of a Home for the aged. Free paper presented in the 2nd Regional Congress of the International Association of Gerontology, Asia/Oceania Region. Singapore 1983.
26. Koganei Study. A prospective and comprehensive study of the elderly in a suburban area of Tokyo: the Koganei study 1976–1981. In: Doll C. ed. Proceedings of 2nd Regional Congress of the International Association of Gerontology Asia/Oceania, 1983.
27. Steward RB, Hale WE, Marks RG: Analgesic drug use in an ambulatory elderly population. *Drug Intelligence and Clinical Pharmacy* 1982; 16(11):833–6.
28. Preventing disability in the Elderly. Report on a WHO working group. Copenhagen, WHO Regional Office for Europe, 1982 (EURO Reports & Studies, No. 65).
29. Heikkinen E. The Elderly in Eleven Countries — a sociomedical survey. Copenhagen, WHO Regional Office for Europe, 1983 (Public Health in Europe, No. 21).
30. The Uses of Epidemiology in the study of the Elderly. Geneva, WHO, 1984 (WHO Technical Report Series, No. 706).