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PREVALENCE AND DEMOGRAPHIC PROFILE OF RHEUMATIC DISEASES AT THE UNIVERSITY OF SANTO TOMAS: CENSUS REPORT JANUARY TO DECEMBER 2008

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ABSTRACT

Rheumatic diseases represent a broad spectrum of conditions spanning from tendonitis to systemic autoimmune diseases. The University of Santo Tomas (UST) Section of Rheumatology, Clinical Immunology and Osteoporosis is an accredited Rheumatology training center which holds regular Rheumatology Clinics and also administers the Joint and Bone Center (JBC) of the UST Hospital. This paper presents the 2008 annual census of rheumatic diseases at the UST Hospital – focusing on prevalence, demographics and clinic visits of each type of rheumatic disease.

Results: A total of 3185 patients with rheumatic diseases were seen at the UST Rheumatology Clinics from January to December 2008, 2892 (91%) of whom were adults and 293 (9%) from the pediatric age group. Osteoarthritis (OA) was the most common rheumatic disease, followed by soft tissue rheumatism (STR), systemic lupus erythematosus (SLE) and gout. Of a total of 4,641 physician-patient encounters (consultations, admissions, infusions, BMD testing) SLE accounted for the most number of outpatient visits and admissions. A female preponderance was noted among OA, STR, SLE, osteoporosis and rheumatoid arthritis (RA) patients. Gout and spondyloarthropathy patients were mostly males.

Conclusions: This census on the prevalence of rheumatic diseases in a single Rheumatology center shows the range of rheumatic conditions and reflects the burden of illness among Filipinos.

Keywords: Rheumatic diseases, prevalence, demographics, University of Santo Tomas

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INTRODUCTION

Rheumatic diseases represent a broad spectrum of conditions ranging from simple localized soft tissue problems to articular disorders like gout and rheumatoid arthritis (RA), to chronic autoimmune diseases like systemic lupus erythematosus (SLE). This wide variety of conditions poses a challenge to clinicians particularly rheumatologists who are often at the receiving end of referrals from other physicians. It is important to know the prevalence and demographics of rheumatic conditions among Filipinos to identify potentially preventable risk factors and to gain insights into the burden of illness from these diseases. As one of the only three (3) accredited Rheumatology training centers in the country, the University of Santo Tomas (UST) Section of Rheumatology, Clinical Immunology and Osteoporosis holds regular subspecialty Rheumatology Clinics and also administers the Joint and Bone Center (JBC) of the UST Hospital (USTH) – a facility which offers bone densitometry, synovial fluid analysis and ambulatory infusion therapy. This paper presents the most recent annual census of rheumatic diseases at UST (2008) – focusing on the prevalence and demographics of each type of rheumatic disease. A secondary objective was to review the number of clinic consultations and admissions of each rheumatic condition, and infer from these data the comparative burden of illness of these diseases.

MATERIALS AND METHODS

The UST Section of Rheumatology, Clinical Immunology and Osteoporosis conducts a regular census on patients with rheumatic disease seen at the Rheumatology Clinics and USTH JBC, and inputs patient diagnoses, demographics, admissions, clinic visits and procedures into a central database file. This paper describes the prevalence, demographic profile, and clinic visits of patients entered into this database from January 1, 2008 to December 31, 2008.

Clinical Division (CD) refers to the charity division of the UST Hospital. Private division (PD) included patients seen at the private and semi-private
rooms. Outpatients were those seen at outpatient clinical division, 3 private rheumatology clinics (2 adult and 1 pediatric) and those who underwent bone mineral densitometry (BMD) at JBC. Inpatients are patients confined in the hospital under the care of a rheumatology consultant both at the CD and PD, as well as those who received infusion therapy at JBC. Visits included all physician-patient encounters whether admission, consultation, infusion or BMD testing.

Statistical Analyses

Categorical variables were presented as frequency and percentages.

RESULTS

There were a total of 3185 patients with rheumatic diseases seen at the UST Rheumatology Clinics from January to December 2008, 2892 (91%) of whom were adults and 293 (9%) were from the pediatric age group aged ≤ 18 years old.

Osteoarthritis (OA) was the most common rheumatic disease (568, 17.8%), followed by soft tissue rheumatism (STR) (484, 15.2%), systemic lupus erythematosus (SLE) (453, 14%), gout (422, 13.2%), osteoporosis (315, 9.9%), and rheumatoid arthritis (RA) (251, 7.8%). A female preponderance was noted among OA, STR, SLE, osteoporosis, and RA patients. Gout and spondyloarthropathy (SpA) patients were mostly males. (Figure 1)

OA, Osteoarthritis
STR, Soft tissue rheumatism
SLE, Systemic lupus erythematosus
Os, Osteoporosis
RA, Rheumatoid arthritis
CTD, Connective tissue disease other than SLE
SpA, Spondyloarthropathy
PS, Pain syndrome
MSI, Musculoskeletal infection

Fig. 1. Types and Sex Distribution of the 10 Most Common Rheumatic Diseases at UST Hospital, January-December 2008.
Among the top ten STRs, majority were non-specific complaints e.g. myalgias followed by tendonitis and carpal tunnel syndrome.

There were 422 gout cases, with a male predominance. The mean age was 53.17 years ± 14.45 (range 34-93). Acute gouty arthritis was found in 305 (72%), chronic tophaceous gout in 100 (24%) and intercritical gout in 17 (4%) of cases.

There were 81 (2.5%) spondyloarthropathy patients, most of whom were psoriatic arthritis (38, 46.9%), with a mean age of 47.65 ± 15.14, range 19-78. Except for psoriatic arthritis, majority of the spondyloarthropathies showed a male predilection (Table I).

Table I. Demographic Profile of Patients with Spondyloarthopathy at UST Hospital January – December 2008.

<table>
<thead>
<tr>
<th></th>
<th>All (n=81)</th>
<th>Male (n=49)</th>
<th>Female (n=32)</th>
<th>Ratio (M:F)</th>
<th>Mean Age in years ± SD (range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juvenile spondyloarthritis</td>
<td>10</td>
<td>9</td>
<td>1</td>
<td>9:1</td>
<td>12.1 ± 4.63 (4-18)</td>
</tr>
<tr>
<td>Ankylosing Spondylitis</td>
<td>30</td>
<td>22</td>
<td>8</td>
<td>2.75:1</td>
<td>38.83 ± 11.93 (19-57)</td>
</tr>
<tr>
<td>Psoriatic arthritis</td>
<td>38</td>
<td>15</td>
<td>23</td>
<td>1:1.53</td>
<td>47.65 ± 15.14 (19-78)</td>
</tr>
<tr>
<td>Undifferentiated spondyloarthropathy</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3:0</td>
<td>38.66 ± 13.01 (26-52)</td>
</tr>
</tbody>
</table>

Figure 2 compares the demographic profiles of OA and RA. Osteoarthritis patients were older with mean age of 60.82 years ± 12.66 (range 32-87), predominantly females (477, 84%), whereas RA patients had a mean age of 53.61 years ± 15.13 SD (range 19-93), also predominantly females (226, 90%). Both diseases were usually encountered in the out-patient setting.

There were a total of 4,641 physician-patient encounters, including clinic consultations, admissions, outpatient infusion therapy, and interviews for bone densitometry at JBC. Even though SLE ranked third in prevalence, it accounted for the most number of patient encounters (1,087, 23.4%). The demographic profile showed a female predominance with mean age of 32.16 years ± 13.16 (1-82). (Table II) OA (688, 14.8%) and gout (605, 13%) ranked second and third in terms of patient visits (Figure 3). SLE also accounted for the most number of hospital confinements, followed by gout, CTD other than SLE, musculoskeletal infections, and osteoporosis (Figure 4). Of 150 patients with CTDs other than SLE, the most common was vasculitis (43, 28.6%) followed by inflammatory myopathy (36, 24%).

There were a total of 69 patients with musculoskeletal infection, most commonly septic arthritis (21, 30.4%). Notably, there were 28 (40.5%) patients diagnosed to have reactive arthritis.
Table II. Demographic Profile of SLE Patients seen at UST Hospital, January to December 2008

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Adults</th>
<th>Pediatrics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>F M</td>
<td>All</td>
</tr>
<tr>
<td>No of patients (%)</td>
<td>453 (96.6%)</td>
<td>15 (3.3%)</td>
<td>378 (83.44%)</td>
</tr>
<tr>
<td>Female:Male</td>
<td>29:1</td>
<td></td>
<td>36:1</td>
</tr>
<tr>
<td>Age in yrs</td>
<td>32.16 +</td>
<td>32.31 +</td>
<td>27.8 +</td>
</tr>
<tr>
<td>Mean ± SD (range)</td>
<td>13.16 (1-82)</td>
<td>13.12 (1-82)</td>
<td>13.77 (14-41)</td>
</tr>
</tbody>
</table>

SLE, systemic lupus erythematosus  
F, Female  
M, Male

OA, Osteoarthritis  
STR, Soft tissue rheumatism  
SLE, Systemic lupus erythematosus  
Os, Osteoporosis  
RA, Rheumatoid arthritis  
CTD, Connective tissue disease other than SLE  
SpA, Spondyloarthropathy  
PS, Pain syndrome  
MSI, Musculoskeletal infection

Fig. 3. Number of Patients and Physician-Patient Encounters for Each Rheumatic Disease at UST Hospital, January to December 2008
SLE, Systemic lupus erythematosus
CTD, Connective tissue diseases other than SLE
MSI, Musculoskeletal infection
RA, Rheumatoid arthritis
OA, Osteoarthritis
SpA, Spondyloarthritis
STR, Soft tissue rheumatism
PS, Pain syndrome

Fig. 4. Number of Admissions for Rheumatic Diseases at UST Hospital (January – December 2008)

SLE, Systemic lupus erythematosus
JIA, Juvenile idiopathic arthropathy
HSP, Henoch schonlein purpura
KD, Kawasaki disease
DM, Dermatomyositis
ReA, Reactive arthritis

Fig. 5. Most Common Rheumatic Diseases Among Pediatric Patients at the UST Hospital, January-December 2008
There were 315 (9.8%) patients diagnosed as osteoporosis, with female predominance at 1:30 M:F ratio. The mean age was 69.9 years ± 9.95, range 55-91. About half of these patients or 181 (57.5%) were encountered during interview at JBC for BMD test while the rest were referrals from other services.

Rheumatic Conditions in the Pediatric Age Group

There were 293 patients age <18 years included in this study. Among the rheumatologic conditions in the pediatric age group, the most common diagnoses were SLE (75, 25.5%), juvenile idiopathic arthritis (JIA) (71, 24.2%), Henoch Schonlein Purpura (HSP) (46, 15.7%), dermatomyositis (34, 11.6%) and reactive arthritis (31, 10.6%). (Figure 5)

DISCUSSION

Rheumatic diseases constitute a major health problem in the general population due to their high prevalence.1-14 In this annual local data of 3,185 patients with rheumatic diseases seen in a single institution, osteoarthritis (OA) was the most common rheumatic disease while SLE accounted for the most number of outpatient visits and admissions in the adult and pediatric age group. A female preponderance was noted among OA, STR, SLE, osteoporosis, and rheumatoid arthritis (RA) patients. Gout and spondyloarthropathy patients were mostly males.

These results were similar to data from other countries on the epidemiology of rheumatic diseases. OA is the most common form of arthritis, affecting every population and ethnic group.1,15-17 There was rising incidence of SLE to nearly triple and there is improved survival rate for the past 4 decades.1,10-11,18-21 There was declining incidence rate on spondyloarthropathies with little change in the age at symptom onset or at diagnosis over the 55-year study period.1,22-24 The prevalence of STR is significantly higher in women than in men and exhibited an increasing trend with age.25 There is an increasing prevalence of gout and hyperuricemia in Filipinos.26-27

Notable in this census was the striking rise in the number of hospital visits of lupus patients. Reasons identified include primarily that the hospital had been recognized as a LUPUS referral center. Secondly, support group (the Lupus Inspired Advocacy (LUISA) Project) enhances lupus awareness through website and monthly meetings.

Aside from arthritis, osteoporosis is also a big burden in public health primarily due to fragility fractures.29-33 Majority of patients recorded were seen during interview prior to performing central dual x-ray absorptiometry (DXA) test for bone mineral density (BMD).

SUMMARY AND RECOMMENDATIONS

If indeed SLE is increasing among Filipinos, this poses a challenge to other doctors and rheumatologists to develop a lupus registry. The escalating number of osteoarthritis, osteoporosis, gout and hyperuricemia among Filipinos signals reinforcement on health campaign in terms of primary prevention and lifestyle modification. Henceforth, future epidemiologic studies on specific rheumatic diseases in Filipinos, powered by larger population data, will entail advancement in planning health policies and strategies as well as improvement in clinical research that may be comparable to other regions globally.

We have presented the prevalence and demographic profile of the common rheumatic diseases seen in a rheumatology center. More epidemiological studies of this kind are needed for us to better understand and managed the complexity of rheumatic diseases.

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REFERENCES


