Disease patterns in the medical wards of a rural South African hospital

 INTRODUCTION

Epidemiological information on disease profiles of the black population in Southern Africa is scanty. Between September 1968 and January 1970, Edginton et al reviewed the diagnoses of 485 female and 53 male patients admitted in the medical wards of Jane Furse Memorial Hospital in Sekhukhuneland. The aim of their study was to document similarities and differences in disease patterns among blacks living in rural and urban areas. Pulmonary tuberculosis dominated the disease pattern, followed by rheumatic heart disease, cardiologyopathy, onyala, goitre and surprisingly diabetes mellitus. Severe obesity, hypertension, bronchial asthma, cholelithiasis, peptic ulceration, and porphyria cutanea tarda were rarely diagnosed. Falkner and Reeve conducted a similar study on 997 patients admitted in the medical wards of the same hospital between November 1982 and 31 October 1983. Their results revealed increasing incidences of asthma, hypertension and diabetes well-recognized in urban blacks, while tuberculosis remained a common problem and a cause for concern. Our main objective was to describe the socio-demographic characteristics and diagnoses of patients admitted in the medical wards of St. Rita's Hospital, Northern province.

METHODS

St. Rita's Hospital is a 334-bed regional hospital in the Sekhukhune district of Limpopo Province. A total of 1486 patients were admitted in the medical wards of the hospital between 1st January and 31 December 1996. From this, a systematic sample of every second patient took place. This resulted in 743 patients comprising of 408 females and 335 males. Data collection and uni-variate analysis were done using the EPI-info software. The coding of the diagnoses was done with the assistance of Prof. ME Edginton.

RESULTS

A total of 1486 patients were admitted during the study period (670 males and 816 females). The sample of 743 patients consisted of 335 males (45,1%) and 408 females (54,9%). The age range was between 12 and 93 years and geriatric patients (60-69 years) had the highest admissions (18,6%). The six most common diseases at discharge were hypertension - 143 (19%), pulmonary tuberculosis - 71 (9%), gastro-enteritis - 58 (8%), pneumonia - 43 (6%), diabetes - 39 (5%), and asthma 31 (4%) (Table I). Disease distribution did not show any significant association between diagnoses and patients' villages of origin.

DISCUSSION

Hypertension topped the list of the six most common diseases constituting
Table I: Frequency distribution of the six most common diseases.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension</td>
<td>52</td>
<td>91</td>
<td>143</td>
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</tbody>
</table>
| Pulmonary tubercu
| 53   | 18    | 71    | (10%) |
| Gastro-enteritis | 18   | 40     | 58    | (8%)  |
| Pneumonia        | 22   | 21     | 43    | (6%)  |
| Diabetes         | 17   | 22     | 39    | (5%)  |
| Asthma           | 6    | 25     | 31    | (4%)  |
| Others           | 167  | 191    | 358   | (48%) |
| Total            | 335  | 408    | 743   | (100%)|

19% (143/743) of the sample, and females (91/143) were more affected than males. All patients admitted for hypertensive episodes had diastolic blood pressures ≥ 120mmHg or presented with congestive heart failure plus hypertension. The prevalence of hypertension in this study was 19% and shows a substantial increase in comparison with the studies of Edginton et al (7,6%) and Reeves et al (8,7%) respectively. Hypertension represents a major health problem for black population living in western countries. In South Africa, studies have demonstrated that there is a higher prevalence of hypertension in the urban black population when compared with their white counterparts living in the same area. Many factors including age, urbanisation, socio-economic status, acculturation have been attributed for this difference. In addition, blacks have an increased voemia, which is related to a genetically determined increase in sodium sensitivity, as well as an abnormal transport mechanism of sodium.

Very few patients were diagnosed with coronary heart diseases i.e. 2/43 (1,4%). This is consistent with a number of studies that have reported that blacks in sub-Saharan Africa have low lipid profiles, which play a protective role in the lower incidence of coronary heart disease. Pulmonary tuberculosis among male patients in the study 53/71 (75%) was significant. The reasons for this include over crowding, high unemployment and poor socio-economic conditions. In addition, the tuberculosis control programme in this area has been poor for many years. The study was not community based, hence the findings cannot be generalised to the entire Sekhukhune district. But it provides useful information on the medical disease patterns of this rural area. In addition, infectious diseases such as typhoid fever and malaria were not included as these are kept in the isolation ward and were too few to make a difference in the overall picture.

CONCLUSION

The findings of this study suggest that diseases prominent in the affluent urban population to a considerable extent affect rural patients seen at this hospital. The focus of primary care clinicians should be to manage chronic illnesses adequately at the clinic level in order to reduce admissions due to these diseases. Improvement in the tuberculosis control programme, living conditions, provision of clean water and proper sewage disposal will help to reduce the incidence of tuberculosis and diarrhoeal diseases amongst this rural population. Future studies are necessary to monitor trends of disease patterns in the rural population of South Africa.

Acknowledgement

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References