PRACTICE OBSERVED

Practice Research

Screening for schistosomiasis among the Yemeni population in Eccles

P L GANVIR, J M V PACKER, R H MALLARD

Abstract

A population of Yemenis living in the north of England was screened for schistosomiasis. Schistosome ova were found in the urine of five of the 104 patients who were screened, but only two received treatment, owing mainly to the mobility of the population. The results of the screening programme showed that it is possible to obtain the enthusiastic cooperation of many individuals, and organisations, most of whom do not normally work together as a team.

Introduction

Although it has been estimated that roughly 200 million people in various parts of the world are infected with schistosomiasis,¹ it is unusual for a general practitioner in the United Kingdom to encounter many cases in his practice. One of us (PLG) has a community of Yemenis in his practice, and 22 cases of the disease occurred among them between 1969 and 1982.

The first patient presented with symptoms of urinary colic. A radiograph of the abdomen showed calcification of the urinary bladder, and a genitourinary surgeon established a diagnosis

of schistosomiasis. After this Yemeni patients who complained of urinary symptoms were investigated for schistosomiasis, and several cases were diagnosed and treated over the next few years. Because the evidence indicated an appreciable incidence of the disease a screening programme was begun.

In 1980 the general practitioner and a community physician decided to form a team, which included staff of the local authority environmental health department and of the public health laboratory, to carry out a screening programme of the Yemeni population by examining specimens of urine and faeces for schistosome ova, starting with the men employed at a local factory.

Methods and results

Urine, which had been collected from each person during a four hour period in the middle of the day, was filtered through a Whatman 541 filter paper and then stained with a freshly made saturated aqueous solution of nitrohydrazide (BDH 440600), dried at 42°C, and examined for the presence of purple stained schistosome ova. Specimens of faeces were examined for helminth ova by direct microscopy and microscopy after formal-ether concentration.² Salmonella and shigella were sought by standard culture methods.

At least one urine and one faeces sample were submitted by 104 persons. Schistosome ova were seen in the urine of five of the men, but none were seen in the faeces samples (table). No ova were detected in the samples of urine or faeces from the women. Three of the five men had in the past been investigated for urinary symptoms. One had had schistosomiasis of the bladder, which was confirmed by biopsy, but the ova had appeared degenerate so no treatment had been given.

As a result of the screening two of the men were treated with niridazole 500 mg three times a day for seven days. No ova were found in a subsequent urine specimen from one man. The other was investigated for complications of the disease: a bladder biopsy showed degenerative ova only. Two of the remaining three men returned to the Yemen before receiving treatment, and we tried unsuccessfully to contact the third man. Samples of faeces from the two men who had been screened during the screening programme yielded the

Eccles, Manchester

P L GANVIR, MA, MSc, general practitioner
J M V PACKER, MA, PhD, specialist in community medicine, Salford Health Authority

Withington Hospital, Manchester M20 1LR

R H MALLARD, FRCS, chief medical laboratory scientific officer, public health laboratory

Correspondence to: Dr P L Ganvir, Eccles Health Centre, Eccles, Manchester M30 0EQ.

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Results of screening for schistosomiasis, analysed by age and sex

Age (years)	Males		Females	
	No. of Yemenis in the practice population	No. screened	No. of Yemenis in the practice population	No. screened
0-14	37	4	34	4
15-24	20	1	20	1
25-34	21	0	21	0
35-44	26	1	26	1
45-54	14	1	14	1
55-64	15	0	15	0
65+	15	0	15	0
Total	177	97	177	94

* Schistosoma haematobium four, Schistosoma mansonii one

following incidental findings. *Shigella flexneri* in a man aged 60, infertile ascari ova in a man aged 56, ova of *Trichuris trichiura* in a man aged 54, and ova of *Hymenolepis nana* in a man aged 37.

Discussion

General practice is becoming orientated more and more towards preventing disease rather than solely offering treatment to patients after disease has become established. Among the Yemeni population that we surveyed schistosomiasis was causing noticeable morbidity, and in most cases the disease was at a late stage by the time the patients consulted their general practitioner with symptoms. Thus irreversible damage had been caused in some to the urinary tract or to other viscera. An association between schistosomiasis and cancer of the bladder has been reported.³ Primary prevention was not appropriate because the infection is acquired in the Yemen. The disease is not endemic and is not spread in Britain because the intermediate hosts (snails of genus *Bulinus*) are not present. Direct person to person spread does not occur. Immunity does not follow initial infection, hence repeated infections commonly occur in people in endemic areas. We concluded that early detection of the infection by screening should be attempted.

We considered the yield of 5% of cases of schistosomiasis to be a worthwhile outcome of the screening programme. It was, however, disappointing that only two of the five cases discovered received treatment. This was in part due to the mobility of the population—Yemenis frequently move within the district in which they live in Britain, and they also spend time in the Yemen. Language was another obstacle. We plan to continue the screening programme by testing a sample of urine and faeces when an individual first consults the general practitioner after arriving in or returning to Britain from the Yemen.

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References

1. Webb G. Schistosomiasis: some advances. *Br Med J* 1981; 283: 1104-6.
2. Allen AWH, Ridley DS. Further observations on the formal-ether concentration technique for faecal parasites. *J Clin Pathol* 1970; 23: 145-7.
3. Macgregor B. *Clinical tropical diseases*. Oxford: Blackwell, 1976.

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100 YEARS AGO

The Convocation of the University of London met on Tuesday last, and again passed a resolution urging upon the Senate the desirability of holding the Prætorian Lecture, Mr B. Examination twice a year. The resolution was, as usual, carried by an overwhelming majority. In a house of nearly a hundred and thirty, there were but two dissentients. It might be thought that the Senate would be ready, even eager, to give effect to the opinion thus emphatically expressed by a body which includes so many men fully qualified to represent every department of teaching. Unfortunately, past experience does not warrant such a hope. The same recommendation made in former years, has been met by the Senate in an uncompromising spirit. That oligarchic body, confident of the infallibility of its educational theories, has not only rejected the advice of Convocation, but has even tightened the regulations which that body decided to be too tight.

If this be a fair index of the temper of the Senate, what hope is there that it will listen to any recommendation which may be made by the special committee which Mr Anstie, Q.C., obtained, to consider the proposals lately published by the Association for Promoting the Establishment of a Teaching University for London? We are far to hope against hope that the Senate may at length be brought to recognise the strength and depth of the movement. Dr Robert Barnes said that if the University could not find under the changed conditions produced by the advance of the higher education, a model remedy, it would soon find it necessary to contrive a model remedy. There are some signs that the University may not thus commit suicide. Nine members of the Senate have joined Lord Reid's Committee, and Mr Richard Hodi Hutton, the only member of the Senate who spoke on Tuesday, though he committed himself in making light of the importance of the present movement, admitted that a closer connection between

teaching and examination was very urgently needed. This is not a large admission; still, it is something to find even one member of that embosomed body recognising the necessity for reform. There are indications that other members of the Senate are beginning to perceive this obvious truth. Objections which are grounded merely on the imperfections of the draft scheme submitted last month to Lord Reid's Committee will not advance the question. The scheme was profoundly practical, and, so far from being designed to settle the question, was, in reality, intended to open it up, and afford a ground for discussion. Convocation, at least, would appear to be fully impressed with the importance of the crisis which has arisen. Mr Anstie's motion was carried unanimously, and the committee appointed comprises many men of the first rank. It was, perhaps, unfortunate, that it was necessary to nominate the members of the committee on the spot of the moment, but, even with this disadvantage, it was not difficult to obtain a list of names which must command the respect, and it may be hoped, also the attention of the Senate. We shall not attempt to forecast the tenor of the report of this important Committee, but as that body contains several of the most active members of Lord Reid's Committee, the necessity for reform will certainly be fully discussed by it. The needs of the great medical school of London, and the general opinion of the medical profession, have long ago found expression, and now the demand of the teachers of all faculties has been distinctly formulated. This demand cannot be ignored. Will the University of London, which has for so many years proudly in the van of progress, make itself the champion of a movement, which is the result of the legitimate aspirations of the great teaching institutions of London, of its numerous colleges and medical schools, whose students are drawn from all parts of the kingdom? *British Medical Journal* 1985; 94

Women doctors in urban general practice: the patients

M COOKE, C RONALDS

Abstract

A large study from a representative sample of general practitioners in Manchester showed that women doctors saw more women patients than men doctors, especially the childbearing age group. They saw a similar range of diagnoses as men doctors, though they saw more women patients for cervical smears, contraception, and breast disorders. Preventive health care may not be adequately provided for these in practices without a woman partner.

Introduction

It has been suggested recently that the role of women doctors in general practice should be documented.¹ An editorial in the *Journal of the Royal College of General Practitioners* suggested the need for evidence of "not the disadvantages but the advantages that women have in general practice."² Although men are not asked to provide evidence of their "special role," there is a lack of data about the work that women general practitioners do.

Over the past few years patients' rights and women's wishes to see a woman doctor have been recognised.³ Since only 18% of principals in Britain are women many women are limited in exercising their rights to choose a doctor. Many of the opinions about the preferences of women patients and the role of women doctors in general practice need to be tested against objective evidence. To compare the work of women and men general practitioners we used some of the data available from the large scale Department of Health and Social Security study of Manchester general practitioners that was carried out in 1981. We look first at the characteristics of the patients seen and their patterns of morbidity. In the second paper (p 755) we examine the doctors' characteristics, their geographical distribution and workload, and the care provided.

Other studies

Few studies have compared the work of women and men general practitioners. Cartwright and Anderson studied a sample of general practitioners, of whom 15% were women, and found no difference in the attitude and behaviour of the men and women studied.⁴ Two studies compared the consultation patterns of female and male partners in individual practices. Hopkins *et al* noted that the female partner saw twice as many women patients as the male partners and that there was a notable sex difference in the attendance rates for embarrassing conditions, with women opting to see the woman doctor.⁵ Preston-Whyte *et al* showed that in one practice two full time women doctors saw different distributions of patients by age and sex from their full time male partners. They showed that patients chose to consult a doctor of the same sex not only for "sex specific" disorders but also for conditions that were not "sex linked," such as circulatory disorders. The female partners saw more gynaecological disease, gave more advice about contraception, and took more cervical smears. Furthermore, though the women principals followed

up men patients to the same extent as their male colleagues, they had an appreciably higher rate of doctor initiated follow up consultations for their women patients.

Method

The DHSS Urban Primary Care Research Unit in the department of general practice at this university carried out a study of the structure and process of urban care in the Manchester area. The study area was Manchester North, Central, and South and Salford and Trafford health authorities. In May 1981 there were 485 general practitioners with surgeries in the area, of whom 366 (75%) provided structured interviews concerning their personal and practice characteristics.⁶ Of these, a subsample of 183 general practitioners agreed to provide selected data about every patient contact for one day at a time on 20 selected days in the year. To ensure that there was no bias from seasonal variation 15 of these days were selected using an appropriate protocol. Data were recorded on age, sex, occupation

FIG 1—Age and sex of patients consulting by the sex of the doctor

of the head of the household; presenting symptoms, provisional diagnoses, and action taken, including the issue of prescriptions and certificates; the use of laboratory tests or x-ray examinations; referrals to consultants, nurses, and social services; and arrangements for follow-up.⁶ Of the 485 general practitioners in the study area, 183 (91%) were women. Of the doctors completing the questionnaire, 187 (67%) were women. In both studies there was a slight bias towards younger general practitioners, otherwise both female and male respondents were highly representative of the study population for place of qualification, size of partnership, number of patients on list, and type of premises.

Results

All of the information on patient characteristics and morbidity comes from the data on consultations collected by 183 general practitioners.

CHARACTERISTICS OF PATIENTS

Age and sex

The results of most surveys have shown that roughly 60% of patients who consult in general practice are women, and we found a similar proportion. Figure 1 shows the age and sex of the patients

who consulted by the sex of the doctor. Women doctors saw a higher proportion of women patients—roughly 60%—than men doctors, roughly 60%. This contradicts Cartwright and Anderson's findings that female and male principals saw the same proportion of women patients,⁴ but agrees with the findings of other studies.⁵ Table 1 shows the range of percentages of consultations by women by the sex of the doctor. Women doctors who saw high proportions of

TABLE 1—Percentage of female patients seen by men and women doctors

	Of female patients	Of women doctors	Of men doctors
	n=156	n=27	n=156
60-64	15	—	—
65-69	15	—	—
70-74	15	—	—
75-79	15	—	—
80-84	15	—	—
85-89	15	—	—
90-94	15	—	—
95-99	15	—	—
Range	60-64	60-64	71-85
Mean	60.2	60.2	69.5

women patients (around 85%) were, with one exception, the only women in a practice, and two of them were the only women in group practices of six and seven doctors. Two Asian women doctors who practised in an area with a large Asian population also had high proportions of women patients.

The general belief that women doctors see more children is not borne out by the data. Men doctors see slightly more of the elderly patients, particularly men, which probably reflects the fact that the population of men general practitioners is slightly older than that of the women.

As expected, women doctors see more women in the age group 15 to 34, supporting the view that a certain proportion of women of childbearing age deliberately choose to consult a woman doctor. The preference of women patients for a woman doctor is confirmed by the fact that men doctors in mixed sex practices saw fewer patients with problems associated with the female gender than men in practices with only men doctors.

Social class

There was no difference in the distribution of patients by social class who saw the women and men doctors in the men deprived areas. There was a slight variation only in the more affluent areas, where women doctors saw more working class patients.

Morbidity

Figure 2 shows the morbidity patterns in patients seen by women and men general practitioners. There was little difference in these patterns, though the women general practitioners saw more patients with problems in the genitourinary and supplementary categories.⁶ (The latter includes family planning and cervical smears.) Overall, gynaecological, prenatal and postnatal care, family planning, and

cervical smears comprised 13.7% of the morbidity seen by women doctors compared with 8.3% seen by men. There was a single compensatory diagnostic group seen by men doctors but a slight excess distributed over a wide range of categories.

FIG 2—Pattern of morbidity seen in patients according to sex of doctor. The supplementary category includes preventive medicine, administrative, family planning, and social problems.

Table 11 shows that the three conditions for which women patients most commonly choose a woman general practitioner to consult are cervical smears, contraceptive advice other than the pill, and breast disorders. It seems to be important that these three conditions require a physical examination by the doctor, and two are connected with cancer, breast lumps in particular causing great anxiety for many women. Although women patients tend to consult women doctors for all major gynaecological problems, perhaps where the patients perceive that there is a likelihood of a physical examination they are more likely to want to consult a woman.

After excluding categories that accounted for under 0.1% of all consultations (fewer than 100 consultations) and those where

TABLE 11—Percentage of consultations with men and women doctors for gender associated conditions

Category	Royal College of General Practitioners code	No. of cases	Seen by women doctors	Seen by men doctors
Cervical smear	329	329	321	64.9
Contraception other than oral	330	366	265	72.5
Genitourinary	331	320	320	100
Female genital including neoplasms—for example, vaginitis, candidiasis	332	320	320	100
Menstrual trouble	333	320	320	100
Cervix and urinary infection	334	1021	1021	100
Uterine infection	335	1021	1021	100
Menopausal	336	1021	1021	100
Pregnancy, antenatal, postnatal	337	2538	1875	73.9
Miscellaneous	338	2538	1875	73.9
Genital (including neoplasms)	339	2538	1875	73.9
Genital disease	340	2538	1875	73.9
Supplementary	341	2538	1875	73.9
All consultations including those not associated with gender		33600	12.8	87.2