The incidence and management of female breast disease in a general practice

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SUMMARY. A retrospective study is reported of 180 women with breast symptoms consulting at a group practice during a 27-month period. The management policies of the general practitioners are discussed in the light of the observed short-term outcomes and of proposals to introduce screening clinics for breast cancer.

Introduction

THERE is growing concern among general practitioners and others about the maintenance and, where possible, the improvement of the standard of primary health care (Hodgkin, 1973; Marson *et al.*, 1973). This study is in part an attempt to contribute to a discussion of what constitutes the optimal initial management of the patient presenting with breast symptoms, with the co-operation of a group of general practitioners concerned about high quality of care and prepared to participate in a clinical audit.

Current discussions about introducing breast cancer screening make it appropriate to consider existing breast cancer services. A study of some aspects of hospital services for breast cancer patients has already been reported (Bywaters and Knox, 1976), but most patients with breast problems are seen only by their general practitioner.

Method

The study was conducted in a group practice of six general practitioners in Birmingham, caring for about 13,000 patients.

As a result of co-operation between the practitioners and the Birmingham University Department of Social Medicine, details of consultations at the practice were recorded on the Birmingham Medical School computer from October 1972 onwards (Farmer and Cross, 1972). Using the computer records and the practice disease indexes, a list was compiled of female patients who had consulted with any breast problem between October 1972 and December 1974, and the written clinical records of as many as could be traced were studied. It was possible to complete proformas for 167 of the 170 still registered with the practice, five of the six who had died, and eight of the 20 who had left the area, a total of 180 out of the 196 patients identified (92 per cent).

Five of the six practitioners who had worked at the practice during the study period were interviewed individually about their policies for the management of patients presenting with various breast symptoms. After the study I had a meeting with all five partners at which the data were discussed further and management policies amplified.

Results

1. Consultation patterns

The 180 patients generated 451 consultations about breast problems during the 27-month study period. One hundred and seven patients (59 per cent) consulted only once, and 29 (16 per cent) more than twice. No patient attended more than four times without being referred for a consultant opinion. Eleven patients consulted more than five times (maximum number 57) and all of these had significant pathology requiring repeated follow-up examinations and/or frequent attendances for treatment.

The number of breast consultations per calendar month fluctuated considerably. Analysis of those consultations where no physical abnormality was detected by the examining doctor, which presumably reflect the general level of anxiety about breast disease in the community, showed a dramatic peak in October 1974, coinciding with the much publicized mastectomies of Mrs Ford and Mrs Rockefeller (Figure 1). There was no comparable rise in the presentation of patients with definite breast pathology.

2. Presenting symptoms and diagnoses

Sixty-eight patients (38 per cent) first presented

Table 1. Distribution of diagnosis by age.

	<10	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	Total
Skin lesion	—	—	—	—	2	1	2	2	—	7
Trauma	—	2	3	—	—	—	—	—	—	5
Infection	—	1	1	4	—	—	1	—	—	7
Mastitis	1	—	18	6	11	1	1	—	—	38
Fibroadenoma	—	—	2	3	2	—	—	—	—	7
Cyst	—	—	—	3	2	2	—	—	—	7
Carcinoma	—	—	—	2	1	8	9	5	3	28
Duct ectasia	—	—	—	—	1	—	—	—	—	1
Other	—	1	1	1	4	—	—	—	—	7
No pathology	1	3	12	9	8	3	3	—	1	40
Not recorded	2	1	9	6	9	4	1	—	1	33
	4	8	46	34	40	19	17	7	5	180

complaining of a lump or lumps in the breast (confirmed by the examining doctor in 39 cases). Fifty-one patients (28 per cent) complained of pain or discomfort. Thus these two symptoms alone accounted for two thirds of all initial presentations. Of the remaining cases where the presenting complaint was recorded, it consisted of nipple discharge (eight patients), change in size or shape (eight), post-mastectomy (five), anxiety (four), dissatisfaction on cosmetic grounds (three), ulceration (two), and assorted minor problems (seven).

Breast lumps were discovered on examination of some patients with other presenting symptoms, and some lumps were found subsequently which were not palpable initially, bringing the total number of discrete breast lumps palpated by the practitioners to 57.

The distribution of diagnoses by age is shown in Table 1. The hospital diagnosis has been used in the case of patients who were referred, and the general practitioner's diagnosis in the remainder.

The 28 patients classified under carcinoma included 18 new cases diagnosed within the study period (ten per cent of the patients consulting) and ten diagnosed previously. In addition, a postmastectomy patient requesting cosmetic surgery was classified under 'other' since she showed no evidence of residual disease. Four of the 18 new cases and one of the 11 old ones died during the period.

It is sometimes said that breast cancer usually presents as a painless lump. In this study, ten of the 18 new cases did present in this way; three presented with ulcerated fungating lesions; three with a painful lump; one with bilateral generalized lumpiness; and one with pain but initially no lump. Thus, although the classic painless lump was the most frequent presentation, pain was by no means a rare feature, and two patients out of the 18 had no discrete lump when they first consulted, thus representing particularly difficult problems in diagnosis and management.

A comparison between the practitioner's initial diagnosis and the definitive diagnosis of the 41 breast lumps referred for hospital investigation is shown in Table 2. The general practitioners' initial diagnoses were confirmed in 24 cases (59 per cent) and amended in nine cases (22 per cent). In the remaining eight cases (19 per cent) no diagnosis was recorded. Clearly, since 20 (50 per cent) were referred even though they were thought probably benign, the initial diagnosis was not necessarily the basis of management.

3. Management policies

The management policies of the individual general practitioners differed in emphasis, but fell broadly into two groups. Two partners said that they would refer immediately any woman with a discrete breast lump, while three indicated that there were certain circumstances in which such a patient would not be referred at once but would be asked to return for a further examination.

In the group discussion several additional points were raised. Stress was laid on the importance of the emotional as well as the organic aspects of the disease in general practice, and on the influence on management of personal factors known to the general practitioner which might not appear in the records. A doctor who invariably advised the patient to return for review if she was not referred would not always record this advice, and thus the number classified as "asked to come again" is almost certainly an underestimate. The problem of patients who then failed to return for review was discussed, and it was pointed out that although during the study period the practice had no mechanism for recalling such patients, it intended to start such a system in the near future. This decision was made before the partners knew the results of the present study, and was independent of it.

4. Management during the study period

Fifty-seven patients were seen with a discrete breast lump. Thirty-two of them were referred immediately, 12 were asked to come again for review, one was put on antibiotics, two were reassured, and no note was

Table 2. General practitioners' initial diagnoses of 41 referred breast lumps.

		General-practitioner diagnosis			
		Benign	Malig-nant	Not re-corded	Per-centage correct
Actual nature of lesion	Benign	16	5	6	*59*
	Malignant	4	8	2	*57*

made on the management of the remaining ten.

Seventeen of the 25 not referred consulted again (including only eight of the 12 recorded as asked to come back), and seven were then referred. Two were found to have no residual lump, and eight still had a lump but were not referred. Five of these eight consulted the practice a third time, two were then referred and three still had a lump but were not referred. Two of these three consulted a fourth time, and both were found to have no residual lump.

Thus overall: 32 (56 per cent) were referred at the first visit; seven (12 per cent) were referred at the second visit; two (four per cent) were referred at the third visit; four (seven per cent) resolved spontaneously; and 11 (19 per cent) had a lump when last seen and are apparently no longer under review. In addition, one was biopsied on the initiative of the hospital doctors when she was admitted with another condition.

Of the 32 referred on the first occasion on which the lump was palpated, 11 were found to have carcinoma. Of the seven referred at the second visit, three had carcinoma. Two of these referrals were made within a week of the initial consultation, but in the third case, a woman of 33, referral was delayed by five months. Following her first consultation, at which the general practitioner recorded a diagnosis of cystadenoma, she was seen both at the practice and by a consultant obstetrician for antenatal care. The question of the breast lump, however, was apparently not raised again until five months after the initial presentation, when she consulted again about it and was referred. Even then, the consultant surgeon expressed the opinion that clinically the lesion was benign, but decided to remove it because of the patient's anxiety. Unfortunately, it then proved to be malignant, with axillary node involvement. Neither of the patients referred at the third visit had carcinoma.

Spontaneous resolution of the lump occurred before biopsy could be performed in 25 per cent of those

Table 3. Time interval in days elapsing at various stages in the diagnostic pathway for 57 referred patients.

		Referred for NHS consultation		*Referred for private consultation*	
Stage		Malignant (15)	Benign (28)	Malignant (3)	Benign (11)
First general-practitioner consultation to referral	Min.	<1	<1	<1	<1
	Max.	141	91	<1 (656)*	22
	Mean	10.1	9.7	<1 (218.7)*	2.0
Referral to first outpatient appointment	Min.	1	1	4	1
	Max.	46	39	9	29
	Mean	10.4	15.6	5.7	11.8
First outpatient appointment to biopsy	Min.	<1	<1	4	<1
	Max.	20	255	21	67
	Mean	10.1	40.9	12.0	19.0
Biopsy to treatment	Min.	<1	NA	<1	NA
	Max.	8	NA	1	NA
	Mean	0.9	NA	0.3	NA
First outpatient appointment to treatment (for those not biopsied)	Min.	<1	NA	NA	NA
	Max.	22	NA	NA	NA
	Mean	10.0	NA	NA	NA
First general-practitioner consultation to biopsy or treatment	Min.	4	3	8	2
	Max.	169	281	25 (675)*	77
	Mean	32.0	61.4	16.5 (236)*	35.4

*See text.

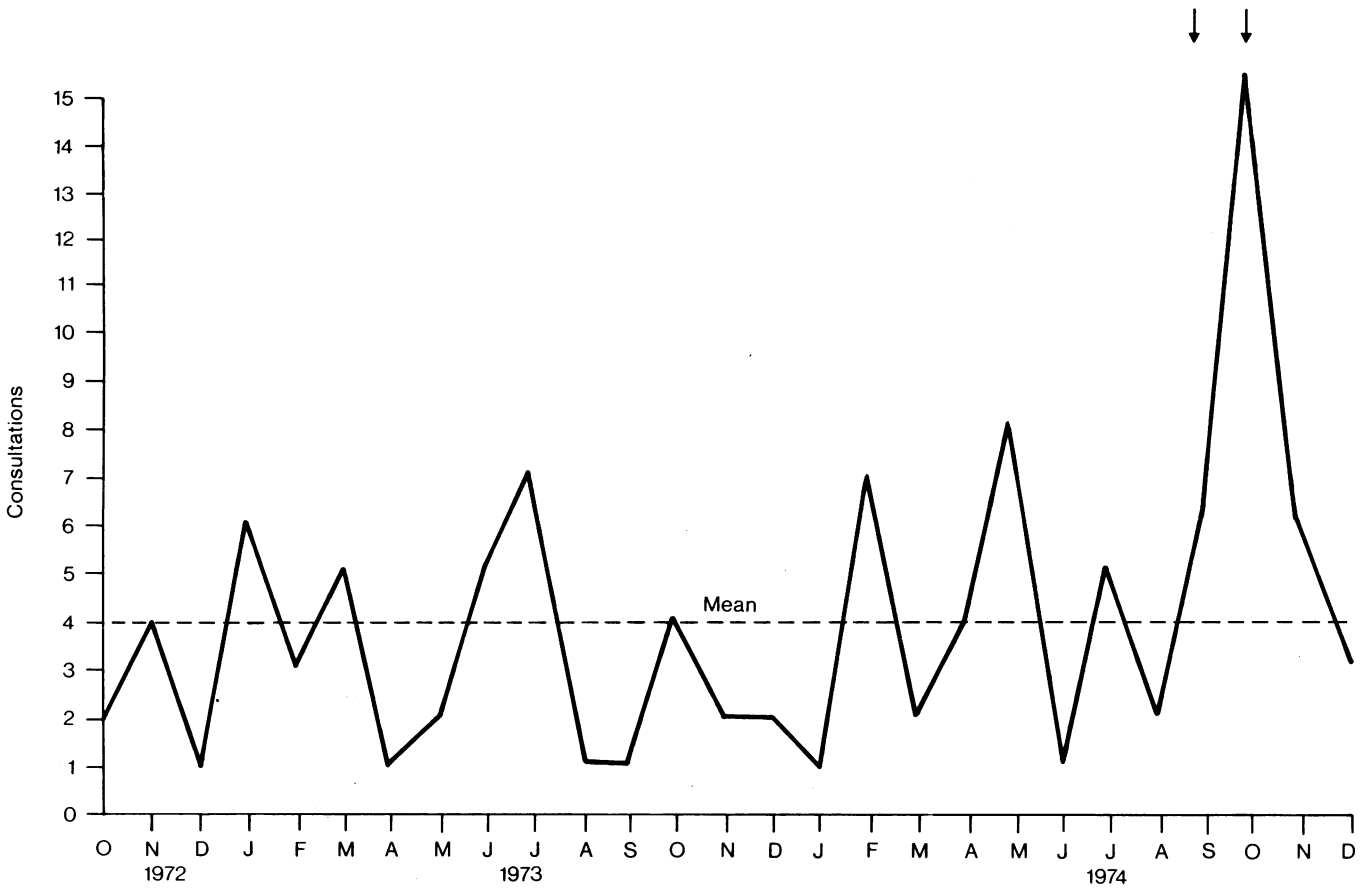

Figure 1. *Frequency of breast consultations per month by women with no definite physical signs showing dramatic rise in September/October when reports appeared in British press of mastectomies on Mrs Ford and Mrs Rockefeller.*

referred immediately, and in 44 per cent of those referred on subsequent occasions.

5. Delays

No information was available on delay by patients before presentation. It is recognized that this is often the longest component, but this is no justification for complacency about subsequent delays within the health service.

The maximum, minimum, and mean time intervals elapsing at various stages in the diagnostic pathway are shown in Table 3 for 57 patients referred for investigation. (Referrals for cosmetic surgery have been excluded.) The picture is complicated by one patient who consulted on four occasions over a period of 22 months complaining of pain in her right breast: on each of the first three occasions the examining doctor found no abnormality, but three months later she reappeared with a mass in her right breast fixed to the skin, which proved to be a carcinoma. In retrospect, it seems likely that her symptoms related from the beginning to this developing lesion, but since there is no way of knowing at what stage it was potentially detectable, she has been excluded from the calculation of general-practitioner delays. The figures which would apply were she included are given in brackets.

Forty-four per cent of NHS referrals had to wait more than two weeks for an outpatient appointment and 26 per cent more than three weeks. Of those referred for private consultations, 25 per cent waited more than two weeks and eight per cent more than three, though the numbers involved here were small.

Patients with breast cancer progressed from presentation to treatment approximately twice as fast, on average, as those with benign conditions, and patients who opted for private referral received treatment on average twice as fast as NHS patients with similar lesions (Table 3). These averages, however, conceal individual variations.

Discussion

In the management of any condition, the general practitioner has to be concerned with the emotional as well as the organic aspects of illness, and this is nowhere more vital than in the emotive area of female breast disease. Women fear both breast cancer itself and the operation of mastectomy, and the powerful effect of two publicized cases in activating these latent anxieties is striking (Figure 1). The general practitioner has the difficult task of identifying and arranging treatment for the minority who do have cancer (ten per cent in this study) while allaying the anxiety of the majority who do not.

The problems in identifying cancer may be considered in relation to two groups of patients, those presenting with a discrete lump and those without.

The latter group, though small, constitutes a particular difficulty: in this study there were only two such cases, both postmenopausal, one with a consistent unilateral breast pain but initially no lump, and one with bilateral generalized lumpiness. Possibly a breast referral service allowing general practitioners ready access to centres with facilities such as mammography might assist in earlier diagnosis of some of these atypical cases.

The commoner problem, however, is the woman who presents with a discrete lump. It is difficult to determine the nature of a breast lump by clinical examination alone: the success rate of the practitioners in this study, 59 per cent of the referred lumps, or, assuming that those not referred were correctly diagnosed as benign, 70 per cent of the total, may be compared with the performance of surgeons who correctly diagnosed 75 per cent of a series of breast lumps due for biopsy (Sandison, 1958). The initial diagnosis was in many cases not the basis of management, since 20 cases thought to be benign were nevertheless referred; wisely, as four proved to be malignant.

The question arises, therefore, whether it is ever justifiable not to refer a discrete breast lump immediately. The outcome in the 25 patients who were not referred at the first consultation was as follows:

1. Three patients with carcinoma were not treated as promptly as they might have been, two being delayed by only a few days, but the third by five months.

2. Twelve patients did not return for review of their lumps; eight after one consultation, three after two consultations, and one after three consultations. One of these had her lump biopsied while in hospital with another condition, but the remaining 11 were lost to follow-up. This tendency of patients not to return needs to be taken into account by the general practitioner who does not immediately refer every lump. Has he fulfilled his responsibility by advising the patient to come back, which advice she may ignore at her own risk? Or should he seek to limit this possibility either by immediate referral in all cases, or by some recall system for patients who fail to reappear for review?

3. Six patients with benign lumps were referred after two or three consultations. Physically, no harm resulted (though this is to be wise after the event). On the emotional side, the results are more equivocal. I believe that, for the majority of women, prompt referral for biopsy minimizes the period of uncertainty and hence the anxiety inevitably experienced on finding a breast lump, but some of the general practitioners believe that such management provokes more anxiety than reassurance and review at the practice.

In summary, the benefits of immediate referral in all cases would be the least possible delay in treatment of cancer, less likelihood of patients being lost to follow-up, and, more controversially, possible reduction in the anxiety experienced by patients whose lesions are in fact benign.

The costs of such a policy would have been an extra 15 referrals. Four of these lumps are known to have resolved spontaneously, and some of the 11 not seen again may have done so. Thus it might be argued that this policy would result in the outpatient and biopsy services being inundated with patients whose lumps would have disappeared without intervention. This is true, but the observation that 44 per cent of those referred on second and subsequent occasions resolved before biopsy compared with 25 per cent of those referred at the initial consultation suggests that the additional examinations did not usefully distinguish on clinical grounds between lumps which would resolve and lumps which would not. True, since some lumps disappear before the second visit there has been some discrimination purely by delay, but this is obtained at the expense of postponing investigation of persistent lesions. However, this postulated effect upon the workload of the diagnostic services is relevant to the current proposals to introduce screening clinics for breast cancer. If investigation and biopsy facilities are inadequate to cope with the present incidence of women already presenting with breast lumps, then this must be remedied before superimposing a screening programme for the detection of asymptomatic lesions.

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