

# **BREAST DISEASE IN WOMEN UNDER THIRTY—TEN YEAR REVIEW AND ASSESSMENT OF CLINICAL SCREENING**

by

**DAVID S. BROOKER and A. DOUGLAS ROY**

Department of Surgery, The Queen's University of Belfast

## **INTRODUCTION**

SCREENING women for the detection of breast cancer by examination is well established although not yet fully assessed. Studies, like that of the HIP<sup>1</sup> in New York, have shown that screening, including mammography, has probably little value under the age of 50 and this is supported by other studies. Nevertheless, publicity has increasingly induced younger women to seek what they believe to be the benefits of clinical screening, and screening for breast lesions is carried out routinely in many family planning and well women clinics where young women predominate. Screening programmes developed by charitable and commercial organisations also extend screening facilities to all ages of women.

This study was undertaken to evaluate breast screening by examination in women under the age of 30 and to relate this to the incidence of breast biopsy in hospital practice.

## **METHODS**

In the first study the records of all women who had been operated on in the Royal Victoria Hospital from 1970-1979 were assessed. Only women who had a formal excisional biopsy of the breast lump were included. Information was obtained on the annual numbers operated on, age at first presentation, the diagnosis and the time which elapsed between first noticing the lump and presentation.

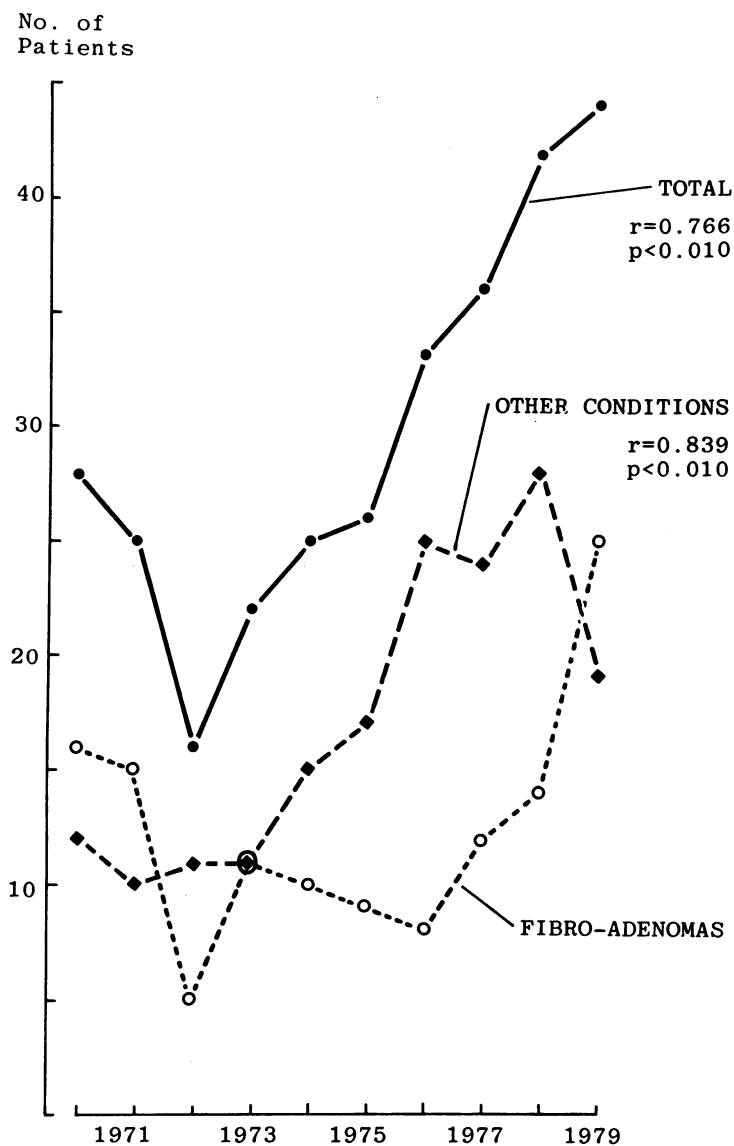
In the second part of the study information was collected on women seen at screening clinics organised by 'Action Cancer' in Ulster. Patients were examined by a doctor in the main clinic or were seen in a mobile unit by a nurse who would refer some patients to the doctor at the centre. During the time under study most patients were seen by one particular doctor and one nurse. Mammography was not used in women under 40.

The results cover a period from September 1978 when the centre opened to the end of April 1980.

## **RESULTS**

In the first study 297 patients qualified for inclusion in the study and of these 28 charts were unobtainable leaving 269 patients as the study population. In 1970 28 excisional biopsies were carried out and these fell to 16 in 1972 but since then have steadily risen until in 1979 44 were performed (Figure 1). The fall in 1972 was probably associated with difficulty of access to the Hospital during periods of civil disturbance.

The diagnosis was determined from the histological reports (Table 1). There were 106 patients (40 per cent) with the diagnosis of fibro-adenoma and their distribution throughout the 10 years does not show the same rising incidence (Figure 1).



**FIGURE 1**  
*Annual number of patients with fibro-adenoma and other conditions*  
 *$r$  = Spearman rank correlation coefficient.*

On the assumption that the number of fibro-adenomas biopsied does not vary significantly from year to year, this number can be used as an indicator of whether the population presenting with breast lumps is changing. With the exception of 1979 there is a noticeable and significant increase in the number of biopsies for conditions other than fibroadenoma. There were only three cases of carcinoma detected. Most of the remaining cases were diagnosed as showing various forms of fibro-cystic disease. Almost 70 per cent of the patients presented for treatment within three months of first noticing an abnormality.

In the second study there were 5926 patients who had been seen at screening clinics. 1329 of these were under 30 and these formed the study population. Of these women under 30, 92 (7.0 per cent) were noted to have abnormalities, only 8 (0.6 per cent) were referred to hospital and biopsy was undertaken in only 4 of them (0.3 per cent) (Table 2). Almost a quarter, therefore, of the patients attending the screening clinics were under 30 years of age and this is the result of the mobile unit visiting areas where there are businesses and offices employing many younger women.

TABLE 1

*Table of Pathological Diagnosis*

<i>Diagnosis</i>	<i>No.</i>
Fibro-adenoma	106
Fibro-adenosis	85
Fibro-cystic disease	21
Combinations of above	26
Miscellaneous	28
Carcinoma	3

TABLE 2

*Screening Clinic Results*

Total patients seen	5926
Total women under 30	1329
Total with abnormalities	92
Hospital referrals	8
Biopsy undertaken	4

The records of the 92 women in whom an abnormality was detected were examined. The abnormality noted ranged from a diffuse thickening to a definite lump. Most of them were reviewed before being referred to a hospital clinic, with the consequence that only 8 with a discrete persistent mass were eventually sent for a further opinion. Amongst those that were not referred were 22 who had previously proven breast disease, ranging from infections to benign lumps operatively removed. Of those referred to hospital only half (4) had biopsies and all of these were benign.

At the end of each patient's visit to these clinics, the patients were taught self-examination of their breast and encouraged to continue doing so.

## DISCUSSION

Breast cancer is very unusual in women under 30. The Registrar-General's reports for England and Wales<sup>2</sup> show an annual death rate from breast cancer which averages 11,000 and of these only about 30 are under the age of 30. Equivalent figures in Northern Ireland show that no woman under 30 died in the years 1970-77 from breast cancer and this study revealed only 3 cases in the decade 1970-79 in this hospital. All these are alive at present. Nevertheless an increasing number of young women are having excisional biopsies of benign breast lumps. However, it must be assumed that the pattern of breast disease in young women is unlikely to have altered between 1970-1979 and this suggests that the indications for breast biopsy are changing and becoming much wider. The only lumps that need to be removed are the fibro-adenomas and carcinomas and these do not seem to have changed in hospital incidence. It is clear therefore that the increasing number of breast biopsies are carried out for diffuse disease which is likely to regress spontaneously.

It is difficult to ignore a breast lump once it has been noticed so the progression from detection to excision may become inevitable. No other diagnostic technique

can exclude carcinoma satisfactorily and surgeons are afraid of missing an early carcinoma. However, the clinical signs of fibro-adenoma and carcinoma do differ very significantly from those of the cyclical changes in the breast of young women and avoidance of unnecessary surgical excision is also a desirable aim. These young women attend for reassurance and there are probably many patients for whom authoritative reassurance would avoid the necessity for breast biopsy and in whom a period of observation would confirm the disappearance of the abnormality.

In the last few years there has been much publicity, both in the commercial press and in various agencies for health education, to encourage women to attend screening clinics and to examine their own breasts regularly. Often no distinction is made between young and old women or if it is made it is not emphasised. The consequence is that many young women, often in their teens, feel they must examine their breasts regularly and become apprehensive about the prospects of developing malignant disease of the breast.

Benefits to young women of screening clinics for breast cancer must be looked at critically. Published results of screening have usually had a lower cut off age of 40-45 years as the low risk in young women is well recognised and the results of the HIP<sup>1</sup> study fail to show benefits of screening in young women. In 1976 the Edinburgh Family Planning Clinic<sup>3</sup> reported on routine breast examination in young women concluding that it had no merit and that such examination should be restricted to women over 40 years.

Several conclusions can be drawn from this paper. Firstly, the increasing number of breast biopsies being performed on young women in this hospital is related to biopsies for benign, diffuse disease and a more critical attitude could reduce this number of biopsies without any risk to patients. Secondly, there is no great delay in women presenting for a medical opinion when they do notice an abnormality in the breast. Thirdly, there is no benefit from screening young women nor in suggesting that they should carry out regular breast self examination. Anxiety generated by such a policy is not compensated for by any therapeutic advantage.

As a result of this study Action Cancer have decided that they will no longer screen breasts of women under 30 years except in the case of a specific complaint. Family planning clinics and well woman screening clinics should also cease to examine the breasts of women under the age of 30.

### SUMMARY

The number of breast biopsies performed on women under 30 years of age has been increasing in this hospital in recent years. A survey of a local cancer screening clinic involving 5926 patients, revealed that 1329 were under 30 years of age and only 8 of these were subsequently referred for a surgical opinion. Only 4 of these had a formal biopsy. The clinic has altered its policy and abandoned routine examination of breasts in under thirties. It is suggested that this policy should be widely accepted to allay anxiety in young women.

### ACKNOWLEDGEMENTS

We would like to thank the Director and Staff of Action Cancer and the Medical Records Department, Royal Victoria Hospital, for all their assistance.

#### REFERENCES

- 1 Shapiro S. Evidence on screening for breast cancer from a randomized trial. *Cancer* 1977; **39**: 2772-2782.
- 2 Registrar General Annual Reports, 1970-1977.
- 3 Hamilton T, Loudon Nancy B, Prescott RJ and Rankin Mary E. Detection of breast disease in a family planning association clinic. *Scot Med J* 1976; **21**: 31-36.