Consent for mastectomy

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Summary and conclusions

The value of a system for reducing the number of women with breast lumps who consent unnecessarily to mastectomy was assessed. Sixty-one patients with breast lumps were divided preoperatively into three groups with benign, doubtful, and malignant lumps according to clinical, mammographic and ultrasound criteria. On the basis of these criteria written consent was requested from 29 patients for mastectomy and from 32 for only excision of the lump. Fourteen of the 29 patients who gave consent for mastectomy had carcinomas, and none of the 32 patients consenting to only lump excision. In an attempt to improve further on these results the same 61 patients were analysed retrospectively. Criteria based on age and the results of clinical examination and mammography were devised. By using these criteria only 19 women would have had to give consent for mastectomy.

This new policy, which was devised to spare many women the stress of consenting unnecessarily to mastectomy, requires to be tested further in a much larger series of patients.

Introduction

There is general agreement that all non-cystic breast lumps should be excised and examined histologically. It is also held that when the lump is malignant and mastectomy is deemed necessary this is best performed without delay and, if possible, under the same anaesthetic. A problem exists, however, in deciding what to say to the patient preoperatively, and one solution is to obtain blanket consent for mastectomy from all patients submitting to frozen-section examination of a breast lump. As the general public becomes more informed, however, an increasing number of women are unwilling to give their consent for mastectomy. Since only about one-quarter of women presenting with breast lumps have carcinomas¹ it seems inappropriate to confront all women with what may be an unnecessary decision at a most anxious time.² Clinical accuracy in assessing breast lumps varies. The accuracy of needle biopsy also varies widely in different centres, and, although an accuracy of over 90% has been reported,³ the investigation is invasive and sometimes painful.

The present study aimed at assessing the usefulness of a combination of clinical examination, mammography, and ultrasonography in predicting preoperatively the nature of breast lumps, with a view to obviating consent for mastectomy in a carefully selected group of patients.

Patients and methods

Sixty-one consecutive patients presenting to one surgeon with a breast lump were assessed clinically and then underwent mammography and ultrasound examination. The patients ranged in age from

18 to 82 (mean 42.4) years (table I). Mammography was performed with a Siemens Mammomat at 28 kV and 40-50 mA s. A vacuum-pack non-screen system was used. Ultrasound examinations were performed using an Emisonic 4200 static scanner with a 7.5 MHz transducer and a water-bath technique.

The patients were grouped preoperatively according to whether the lump was probably benign, doubtful, or probably malignant. If the lump was considered on clinical examination to be probably malignant the patient was placed in the probably malignant group. All other patients were classified on the following mammographic and ultrasound criteria.

Probably benign—In this group both the mammogram and ultrasonogram were reported as indicating a benign lump. The patient was told that her lump was probably a simple one, and consent for only excision of the lump was obtained. Nevertheless, frozen-section examination was carried out.

Doubtful—This group included those patients whose investigations gave conflicting results and those for whom both investigations gave equivocal results. The patient was told that the precise diagnosis was uncertain. Frozen-section examination and the possibility of proceeding to mastectomy under the same anaesthetic were explained and written consent for mastectomy obtained.

Probably malignant—Those patients in whom both mammography and ultrasonography indicated a malignant lump were warned that the lump was probably malignant and that mastectomy was likely. Frozen-section examination was carried out.

TABLE I—Age distribution of patients

Age (years)	≤30	31-40	41-50	51-60	61-70	71-80	≥81
No of patients	14	14	19	4	4	5	1

TABLE II—Preoperative grouping of patients according to results of clinical examination, mammography, and ultrasonography

Group	No of patients	Histology	
		Benign	Malignant
Probably benign	32	32	
Doubtful	18	15	3
Probably malignant	11		11
Total	61	47	14

Results

Histologically, 47 of the 61 lumps proved benign while 14 were carcinomas. Thirty-two patients were classified in the possibly benign group, and all had benign lumps. No patients therefore required mastectomy at a second operation. Eighteen patients had lumps that were classified as doubtful, of which 15 were benign and three malignant. Thus only 15 of the 47 patients with benign lumps consented to mastectomy. All 11 patients in the probably malignant group had carcinomas (table II). The proportion of malignant lumps correctly predicted by clinical examination was 71%, that predicted by mammography 71%, and that by ultrasound 62%.

This approach to breast lumps in women was thought to be worth while. Retrospective analysis of the results, using a linear logistic model⁴ to predict the histological diagnosis from the results of clinical examination, mammography, and ultrasound examination, suggested that mammography was the most effective predictor when the age of the patient was taken into account. As mammography is of greater value in older patients⁵ and the irradiation may be unjustified in younger women⁶ a different method of grouping the patients was devised.

Those aged 30 years or less—Unless the lump is considered clinically to be malignant consent for only excision of the lump is obtained. Mammography is not used.

Those aged 31-59—Mammography is performed, and if the lump is reported to be benign consent for only excision is obtained. If the

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report is equivocal or malignant the patient is told that the nature of her lump is uncertain, the frozen-section procedure is explained, and consent for mastectomy obtained.

Those aged 60 years or more—Mammography is performed, and if the lump is reported to be benign consent for only excision is obtained. If the report is equivocal or malignant the patient is warned that her lump is probably malignant and mastectomy is likely.

Frozen-section examination is carried out regardless of grouping. If these age-based groups had been used only 19 of our 61 patients would have been asked to consent to mastectomy. Only five of the 47 patients with benign lumps would have had to consent to mastectomy, and no patient would have required mastectomy as a second procedure (table III).

TABLE III—Suggested grouping of patients and subsequent treatment according to age and results of mammography

Age (years)	No of patients	Mammography	Procedure	Histology	
				Benign	Malignant
30	14		Excision of lump	14	
31-59	37	Benign	Excision of lump	26	
		Equivocal or malignant	Frozen-section procedure	5	6
59	10	Benign	Excision of lump	2	
		Equivocal or malignant	Probable mastectomy		8
Total	61			47	14

Discussion

In this series ultrasound examination at any age did not contribute to the overall accuracy. Mammography was unnecessary in patients younger than 31 years. The aim of this study was to avoid as far as possible obtaining consent for mastectomy from women with breast lumps that subsequently

proved histologically to be benign. By using a combination of clinical, mammographic, and ultrasound examinations to predict the diagnosis only 15 of the 47 patients with benign lumps were asked to consent to mastectomy. The retrospective analysis showed, by careful consideration of the age of the patients and by using mammography in selected cases together with clinical examination, that this could have been further reduced to five of the 47. Every patient with a carcinoma was asked to consent to mastectomy, and this would still have been so using the proposed scheme based on age, mammography, and clinical examination. Clearly this strategy requires to be tested on a much larger series of patients; a preliminary test on 51 patients yielded encouraging results.

We conclude that by taking a critical approach most women with benign breast lumps may be saved the anguish of consenting unnecessarily to mastectomy, while at the same time consent may be obtained from all those with carcinomas.

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Randomised trial of high doses of stilboestrol and ethisterone in pregnancy: long-term follow-up of mothers

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Summary and conclusions

In 1950 a trial was set up to evaluate the effects of large doses of stilboestrol and ethisterone on rates of fetal loss in pregnant diabetic women. Eighty women were allocated at random to receive the hormonal treatment and 76 to receive inactive tablets of identical appearance. At follow-up 27 years later, information was obtained about 97% of the women, all but four being traced. All respondents were unaware of who had received hormones. The overall mortality was 4.5 times that of women of comparable age in England and Wales, most deaths being from complications of diabetes. More tumours, mainly benign, of the reproductive tract were reported in the hormone-exposed than the non-exposed

group (14 (18%) and two (3%) respectively). Four cases of malignant breast disease were reported in the hormone-exposed women and none in the non-exposed.

These findings support other evidence linking oestrogen treatment and breast cancer and suggesting that the latent period before the tumour becomes clinically apparent may be 15 years or longer.

Introduction

During the 1940s there was optimism that substantial reductions in rates of fetal loss could be achieved by administering high doses of oestrogens, with or without progestogens, during pregnancy. This form of treatment was advocated particularly for diabetic women, in whom rates of fetal loss were exceptionally high. In 1943 White and Hunt reported that regular administration of stilboestrol and progestogen during pregnancy reduced the rate of fetal loss in diabetic women from 40% to 8%.¹ In the light of these results the Medical Research Council appointed a committee to conduct a controlled trial to assess the effects of this type of hormonal treatment on the outcome of

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