

Breast fibrocystic disease and thermography

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Summary. Thermography (T.) is useful in breast benign disease to identify progesterone shortage and to control the effect of medical substitutive treatment. Results of a 4 yrs survey of 180 women with benign breast disease treated by progesterone are presented.

Key words: breast fibrocystic disease, thermography, progesterone, dysplasic B.

A) INTRODUCTION

In breast benign disease, due to progesterone insufficiency,⁴ one can distinguish: 1) **Elementary dysplasia**, with premenstrual breast pain extending over the whole cycle on a backward way, beginning in the upper outer quadrant of the left breast; becoming bilateral with breast congestion and without any palpable mass. 2) **Organised dysplasia**, with structural changes in the breast, sensation of nodes and granulations, increasing in premenstrual period, seen in elder women (35-45) with former mastodynia. In these conditions, the following benign breast tumours are seen: a) **adenoma** for young girls with large development of glandular tissue; b) *cyst* in older women with tubular structure surrounded by sclerosis. Progesterone insufficiency makes the hormonal receptors able to receive more estrogen simulation, and then increase the metabolism in the breast.

B) MATERIAL AND METHODS

As thermography (T.) depends on breast metabolism and thermal vascular pattern depends on this metabolism, the Authors tried to show that: 1) T. demonstrates **breast benign mastopathiu**; 2) changes in breast thermal pattern following treatment correspond to the **improvement of breast trophicity**.

1. Benign mastopathia

There are actually 3 different classifications of breast vascular pattern: N.C.I.;¹ Strasbourg;² Marseilles.

Based on the Authors experience on more than 20,000 examinations, a subcategory of

type B has been defined, called Dysplasic B.^{3, 6} It is usually symmetrical, sometimes only on one side at the beginning of the disease. This kind of type B is intermediary between the normal type B and the type D with some intricate vascular pattern in the upper quadrants of both breasts or with little vascular spots regularly scattered like wheel spokes (Fig. 1).

The dysplasic type B, together with the type D, which can be considered as an increasing of

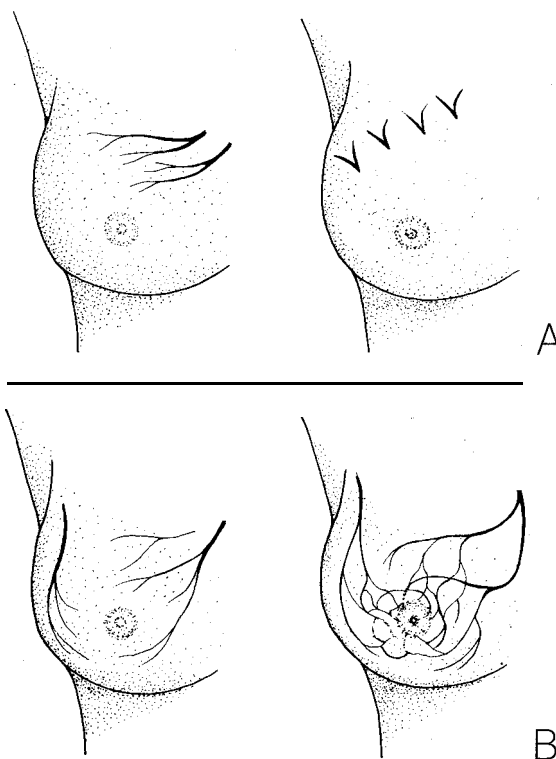


Fig. 1 A-B. Fibrocystic disease. A) Dysplasic B pattern. B) C-D or type III pattern.

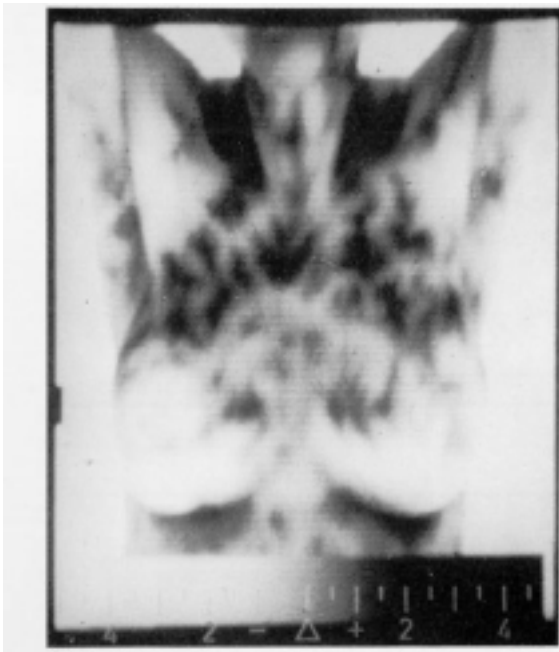


Fig. 2. Typical dysplastic B with Intricate vascular pattern in the upper quadrants. Progesterone insufficiency in plasmatic dosage.

the former one, are the most frequent benign diseases (Fig. 2).

In order to control the correlations between T. and breast dysplasia a dosage of plasmatic

hormones was done. Progesterone and 17β -oestradiol were measured in the second part of the cycle of 60 women with breast fibrocystic disease, and of 20 women without any symptoms.

The normal women essentially exhibit patterns of type A or B, with exception of women with large falling breasts associated with venous pathology visible by diaphanoscopy. More than 80% of the women with mastopathy exhibit a dysplastic B or D type. Some of them had asymmetrical pattern correlated with more important symptoms on this side or with more glandular tissue, as visualised by echography. Real hyper-oestrogenia gives also an important vascular pattern, as demonstrated by observations of a man using oestrogenic treatment or of a woman using it during the menopause.

2. Treatment follow-up⁵

In total 180 patients with mastodynia and fibrocystic disease, treated with percutaneous progesterone (PROGESTOGEL) and luteal hormones in the second part of the cycle (ORGAMETRI), were examined (Tab. I and II). Clinical improvement with decrease of pain and nodes as well as changes of the vascular pattern is



Fig. 3 A-B. A) Breast pain with nodes in both breast T. bilateral D. B) 6 months after progesterone treatment (oral and percutaneous). Important decrease of vascularity (A or B type).

Tab. I. Results of the treatment (180 women).

Follow-up	Mastodynia 59.5%	Organized mastopathia 40.5%
Clinical improvement	75.5%	85%
Unchanged	8.3%	3%
Worse	16 %	12%

especially in those women with a benign pathology but a normal thermovascular pattern who, usually, do not benefit of progestative therapy. The venous factors in benign pathology should be further investigated.

Actually, it is only the combination of different examinations that can give an answer to the questions in breast problems.

Tab. II. Thermographic pattern modification after treatment.

Type	Benian disease		Normal women
	Before	After 6 months treatment	
A	1%	10%	20%
B	4%	40%	50%
dysplasic B	50%	20%	6%
C	3%	3%	2%
D	40%	25%	20%
E	2%	2%	2%

observed. The type D went back to B with decrease in intensity and extension, the same for dysplasic B. A lot of asymmetrical aspects became symmetrical (Fig. 3 A-B).

CI CONCLUSION

The T. picture reflects breast physiology in breast carcinoma as well as in breast benign disease. From the present study T appears to reflect benign pathology due to hormonal changes. T. helps in choice of treatment.

However, all possibility of T. for the evaluation of treatment of fibrocystic disease needs to be explored more completely. In fact, some interesting problems have to be solved,

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