

## BREAST HYPOPLASIA

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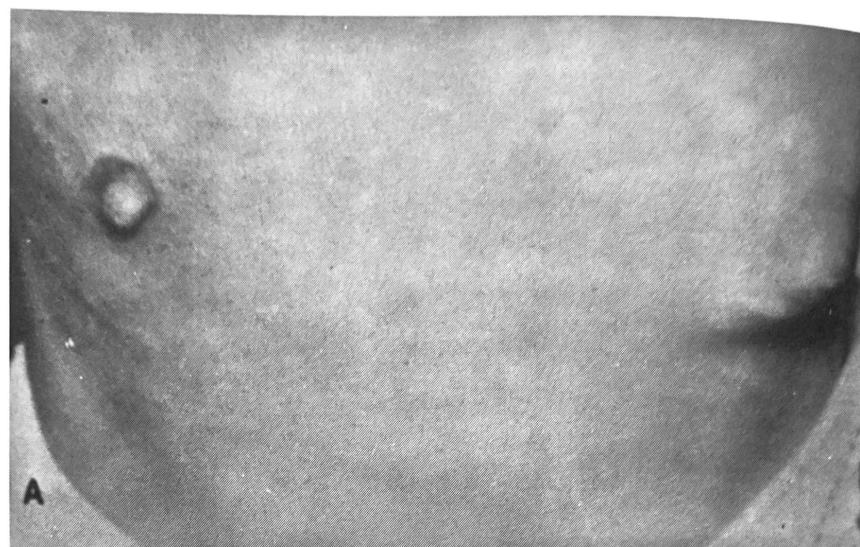
Breast hypoplasia can occur for two main reasons; the first is inadequate stimulation of the breast with oestrogens and the second is a poor response to what would otherwise be an adequate hormone stimulus.

In the first category there are a variety of conditions, gonadal dysgenesis is a not uncommon one. Alternatively there may be a primary hypothalamic pituitary failure to produce gonadotrophins. The patient may be one of the varieties of XY female in whom there is some masculinization although the phenotype is predominantly female or she may be an example of adrenal hyperplasia which had not been diagnosed earlier, in which the excess production of androgens is interfering with the action of oestrogens.

In the second category, there may be poor development of the breast bud or the breast bud may have been removed by previous unwise surgery (Fig. 1) or there may have been profound atrophy of the breast as a result of a crash diet — a condition my colleague Dr. Capraro calls instant senility. Unwise removal of the breast bud sometimes occurs because often the early development of breasts is unequal; one breast bud manifests itself before the other and should this happen at an unusually early stage, a surgeon may believe the little swelling could be a tumour, he may carry out a biopsy which will result in the removal of almost all the bud on one side. It must be remembered too that in this category of imperfect response to stimulation there may be an ugly breast deformity such as you see in Fig. 2 or inequality, such as you see in Fig. 1.

The effect of breast hypoplasia of this kind is variable of course. Some patients are able to adjust to it well but others may be profoundly disturbed psychologically.

I have known patients in whom there was very poor breast development who were extremely sensitive about this despite the fact that they had regular periods, were otherwise obviously feminine and indeed had



*Fig. 1.* Unilateral breast development in a child whose breast bud was removed on the right side by biopsy earlier in childhood (courtesy of V.J. Capraro and Messrs Harper and Rowe).

a satisfactory sexual relationship. The patient whom you see illustrated in Fig. 3 was such an example and although she lived very happily with her husband sexually she was always unwilling to have her breasts exposed and it took a lot of persuading to get her to agree to have this photograph taken. If the psychological disturbance is marked, it falls into the category of what psychiatrists call organ inferiority and may require psychiatric consultation.

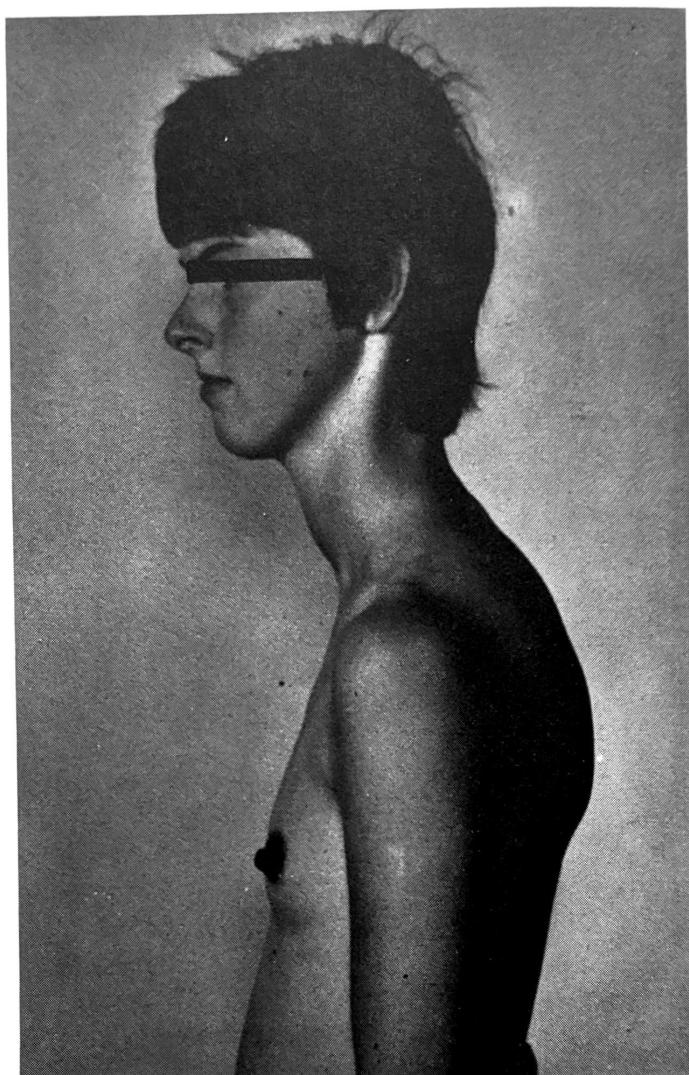
The investigation of a patient with breast hypoplasia will of course be concerned with establishing whether it is poor stimulation by oestrogen which is to blame or poor breast response. If the patient is menstruating regularly then it is almost certain that it is the response which is to blame. It must be remembered that in the condition of gonadal dysgenesis some patients do undergo a degree of ovarian differentiation and breast enlargement may arise to a certain extent, as you see in Fig. 3. These atypical cases are often associated with the presence of mosaicism or an abnormal chromosome; chromosome analysis may be appropriate in some of them. If it is felt that a poor response is causing very profound psychological disturbances consultation with a psychiatrist will always be wise. There may well be an underlying psychiatric instability in these patients which may result in the patient subsequently developing a complaint of inferiority in some other respect following treatment for breast hypoplasia.

Treatment will of course depend upon the cause. If there is poor stimulation of the breast due to imperfect oestrogen production, replacement oestrogen therapy will probably be required. It has been my practice over many years to introduce this replacement oestrogen therapy gradually. I begin with ethinyl oestradiol which I prescribe in doses of 10 ng daily taken between the first and the 24th day of every calendar month. This



*Fig. 2. Breast hypoplasia and an ugly deformity in an adolescent.*

dose may be taken for three or four months and it may be increased to 20 ng daily for the remainder of the first year of treatment. Thereafter, however, if the patient has a uterus I think it is advisable to introduce a progestogen as well to prevent endometrial overstimulation and I generally prescribe norethisterone 5 mg for the last 7 days of the treatment cycle. Of course if the patient is an example of an XY female who requires replacement hormone stimulation and the uterus is not present, treatment need not be intermittent and the progestogen need not be given. If the diagnosis has been congenital adrenal hyperplasia, and androgens have been interfering with the effect of the oestrogens, effective treatment with cortisol or one of its synthetic analogues is likely to result in a satisfactory breast response. I have been satisfied that the addition of progestogen was necessary to get a good breast response to hormone treatment although

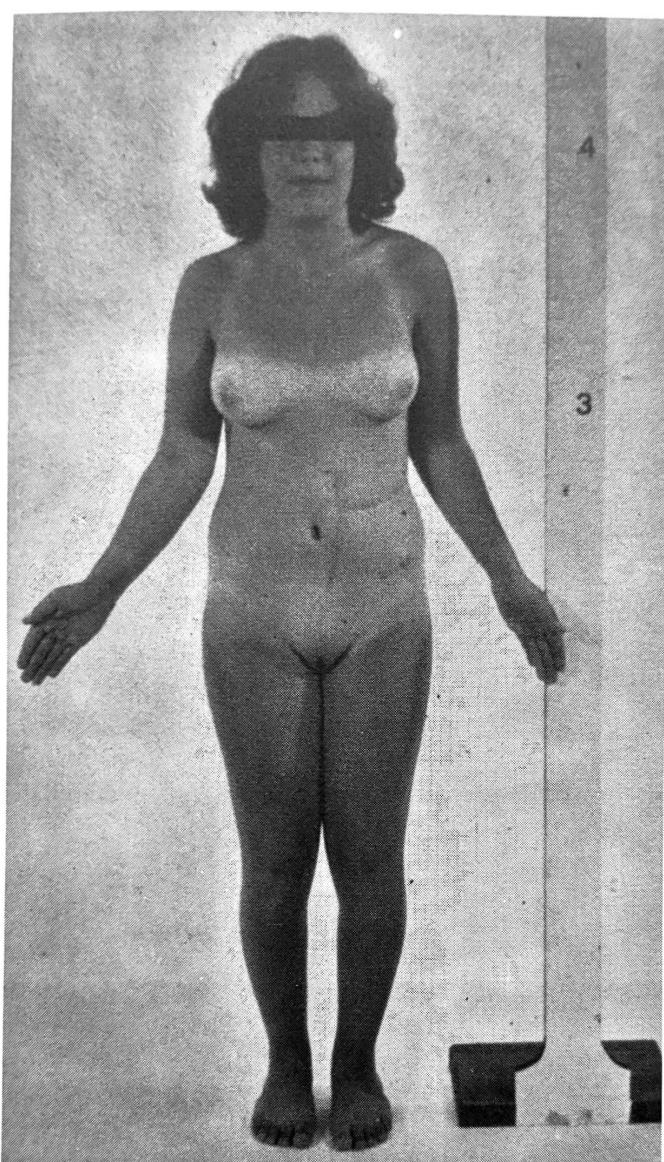


*Fig. 3. Marked breast hypoplasia in a married woman.*

the progestogen, as I have said, is required at least after the first year if the uterus is present. The response of the breast to hormone replacement therapy is usually satisfactory, as you see in Fig. 4. The amount of response does not always satisfy the patient, however, as in this case, in which the patient regarded the degree of breast enlargement to be inadequate and was anxious for some advice as to how the response could be improved. In my experience, replacement oestrogen therapy given in the manner I have described usually gives satisfactory breast enlargement.

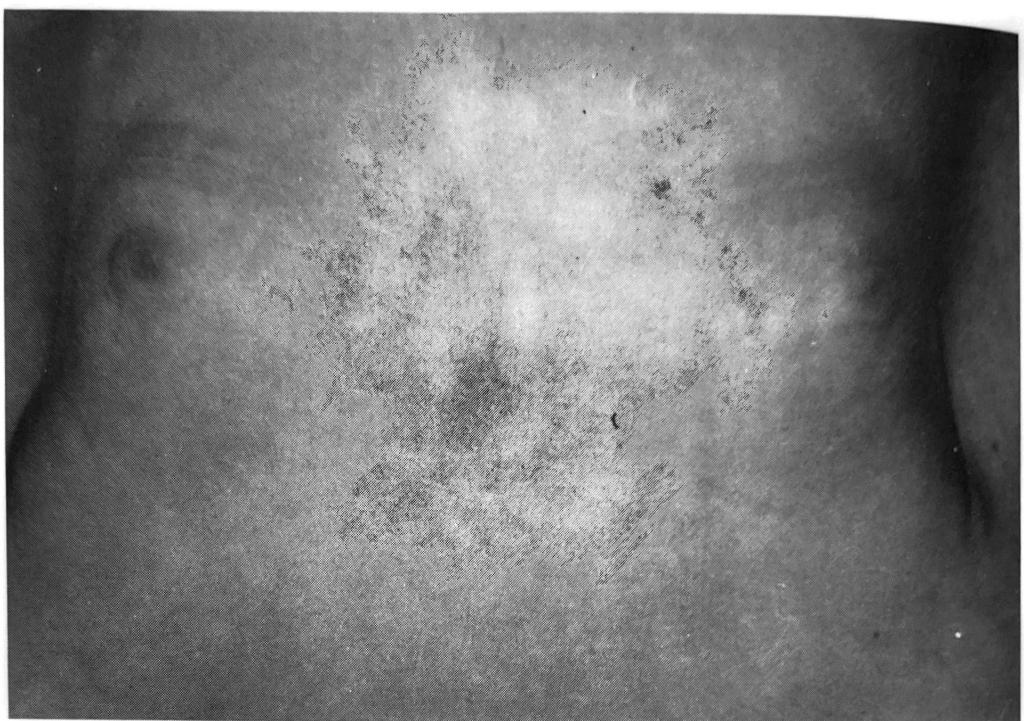
The times when I have found it unsatisfactory have been very few and I have sometimes been concerned about giving very much larger doses of oestrogen from the beginning of therapy.

For poor breast enlargement which is thought to be due to an imperfect response of the breast itself, it is possible that some improvement may occur if the patient is given treatment with a combined oral contraceptive.

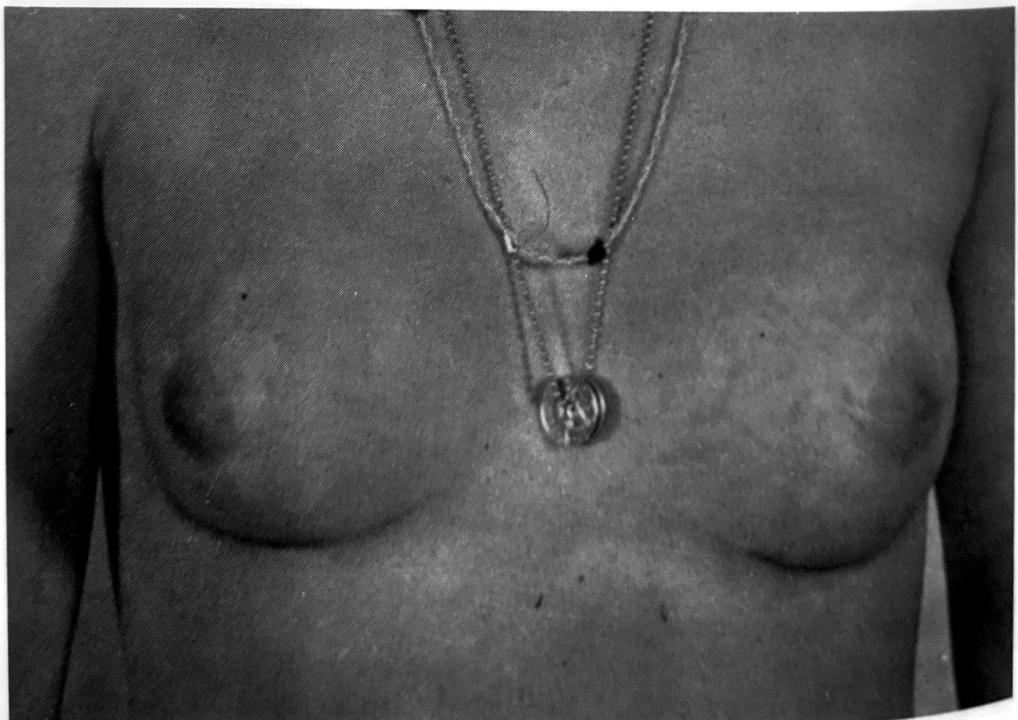


*Fig. 4.* Good breast development as a result of the oestrogen regime mentioned in the text.

A number of patients taking the combined oral contraceptive for other reasons do notice some slight increase in breast size and this effect is at least worth hoping for in a patient who has significant hypoplasia. If the combined oral contraceptive has an adequate effect well and good, but if it does not a plastic surgical procedure to increase the size of the breast should certainly be considered. In Britain this type of therapy is not performed by gynaecologists and I have no personal experience of it. I have however had a number of patients who have been very glad of therapy of this kind, patients who are illustrated here (Fig. 5 a 5 b). If there is an ugly breast deformity such as the one you see illustrated in Fig. 2, surgical treatment is likely to be necessary and will probably have an excellent effect on the



*Fig. 5a.* Indifferent breast development following oestrogen stimulation.



*Fig. 5b.* The same patient seen in Figure 5a after an augmentation mammoplasty.

patient. For breast inequality the initial treatment should merely be a period of observation, since inequality in size is common during the early stages of breast growth, the breasts becoming equal after a period of time. If this has not happened by the time the patient has begun to menstruate, however, it is perhaps unlikely that it will and if inequality is marked and having an effect on the patient, surgery should be considered. It is very important here, however, to remember that surgery should not be undertaken until growth is complete or else an operation on one breast either to increase its size or to reduce its size may result in further inequality later if the other breast continues to grow.

I believe breast lesions of this kind are important in gynaecology and demand perhaps more attention from the gynaecologist than they have received hitherto.

# **Pediatric and Adolescent Gynaecology**

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