HYPERTROPHY OF THE FEMALE MAMMA.

By Sir GEORGE THOMAS BEATSON, K.C.B., M.D., B.A.(Cantab.), Surgeon to the Glasgow Western Infirmary, and Surgeon to the Glasgow Cancer Hospital.

BESIDES fibro-adenoma, the condition known as Hypertrophy of the Mamma is another non-inflammatory affection of the adult female breast that is characterised by marked swelling. In it the gland is universally enlarged, the enlargement being due not to the presence of any neoplasm, but to an increase in one or all of its component tissues—glandular, fibrous or fatty—so that possibly the term hyperplasia, with the necessary prefix, might be more appropriately used than hypertrophy. It is a pathological state of matters that has long been recognised, and has been described by surgeons and other medical men. One of the earliest cases recorded was in 1669 by Durston, and his account of it is given in vol. iv. of the Philosophical Transactions of the Royal Society of London. A study of the published cases makes it clear that this condition of hypertrophy is met with not only in married but also in single women, and that it usually attacks both breasts, though not invariably, several instances being recorded where only one breast, and that usually the left one, was affected. Billroth is sceptical about these latter cases, and is inclined to associate them with the presence of some undetected fibro-sarcomatous nodules. Two other points are also brought out. The first is that while the disease may appear in later life it is most frequent at puberty, and the second one is that it is often associated with sexual irregularities, both functional and developmental. The following case is of interest as being illustrative of the leading features of this affection.

The patient, a single woman, aged 30, came under my care at the Glasgow Cancer Hospital for pain and discomfort in her breasts, which had been gradually enlarging for a period of six or seven years. She stated that up to the age of twenty she had been pale and thin, but after that she got much stouter, and her face became florid and papular. Her menstrual history was very remarkable. She began to menstruate about the age of nineteen, the actual establishment of the flow having been preceded by constitutional symptoms at several previous periods without actual discharge. She had only two periods, after which menstruation entirely ceased. Each of the periods lasted about two days, the flow being neither excessive nor deficient. For some time after
Edinburgh Medical Journal, Vol. I., No. 6.

Fig. 2.
Fig. 3.
Hypertrophy of the Female Mamma

this she remained fairly well, but always felt ill and out of sorts at the time when menstruation should have taken place. Subsequently leucorrhoea showed itself, and she suffered a good deal of pain in the lower part of the abdomen. For these symptoms she sought advice at the Glasgow Western Infirmary, and was admitted under the care of the late Professor Leishman. She was relieved by the treatment, and her general health improved, but the amenorrhoea continued. As a tumour was detected in her left breast she was transferred to the wards of the late Sir George Macleod, who removed the tumour. This was in 1890. I find, from the hospital journal, that the tumour was the size of a hen's egg, and that the pathological report describes it as an encapsulated adeno-sarcoma, what in the present day we would call a fibro-adenoma. She made a good recovery from the operation, and subsequently kept fairly well, but of late years her health has not been of the best, and for some time she has suffered from attacks of vomiting every four or five weeks. The amenorrhoea has continued, and she has had a great deal of discomfort and even pain in her breasts, which have been steadily enlarging, and are a burden to her, the right one being the most painful.

On admission to the Cancer Hospital her face was very hyperæmic and papular, and she was very stout, weighing 14 stones. Both mammae were of large size, and on the left one was visible the cicatrix of the operation mentioned above (see Fig. 1). Both breasts stood out from the chest, and had a firm elastic feel. When pressed firmly against the thoracic wall the hand detected no new growth in either of them.

In view of the constant aching pain in them, and of their still increasing size, I advised operative measures, suggesting the removal of the right mamma only at first, as it had been observed in other cases operated on that excision of one breast had been followed by diminution of the other. To this treatment she consented, and the right mamma was successfully removed. As subsequently no improvement took place in the left mamma she returned in a year to have it taken away as well. This was done, and she made a very satisfactory recovery. Since 1898, when the last operation was done, she has been very well, and when seen quite recently she was in excellent health, although the amenorrhœa has continued. She has lost somewhat in weight, being now only about 13 stones.

After removal both mammae presented on section much the same appearance. They were seen to be largely composed of
fatty tissue, as if the cause of their excessive size was due to an abnormal growth of fat (lipomatosis). Microscopic examination, however, of the breast tissue did not support this view. Sections of it showed the glandular elements of a normal breast in a resting condition, but the number of acini seemed to be fewer than normal, while the intra-acinous fibrous tissue was in excess and very dense in character, though scattered through it were spaces filled with a considerable amount of fat (see Fig. 2). From the appearances observed it seems very probable that the fat and fibrous tissue went to make up a large part of these hypertrophied mammae.

In its main features the above case resembles most of the other instances of hypertrophy of the mamma put on record, for the enlargement involved both breasts, it began in early life, and it was marked by sexual irregularity in the form of amenorrhoea. That this so-called hypertrophy is a diseased state must, I think, be admitted, and it would seem pretty well established that it may exist in more than one form. Occasionally it occurs as a true hypertrophy, when all the structures of the breast are affected, there being an overgrowth of both the glandular and connective tissue elements. Such cases are in the minority, for the microscope shows that most frequently the increase in size is mainly due, as in the present case, to an overgrowth of the white fibrous tissue of the organ, which at first is interspersed with fat, but afterwards becomes devoid of it. There is not, however, a complete disappearance of the glandular elements of the breast, for sparsely embedded in the stroma can be seen portions of them, sometimes normal in appearance and sometimes degenerating. Occasionally, too, there are present in the fibrous tissue large lymph channels and a considerable number of blood-vessels. Cases of hypertrophy with such histological appearances can scarcely be regarded as caused by true hypertrophy, and would be more correctly described as instances of Fibrous Hyperplasia of the Mamma.

Clinically, the progress of these cases of hypertrophy is marked by appearances so different that some surgeons, like Birkett, hold that there are two forms of the affection, in one of which the breast is large and firm, with the skin over it tense and smooth, while in the other the breast is pendulous, pedunculated, flat and flaccid. This view is probably not correct. It seems more likely that these apparent varieties are merely stages of one and the same affection, and that the conditions present in my case (see Fig. 1) are characteristic of the initial period of the disease, and
Hypertrophy of the Female Mamma

that they would have gone on to the later pendulous and flaccid condition shown in Fig. 3, which is the photograph of a case that was in the Glasgow Western Infirmary under the late Sir George Macleod. It is interesting to note that both illustrations show the nipples unaffected, though it is not difficult to realise that they might be effaced by pressure should the size of the mammae become excessive.

As a rule, hypertrophy of the female mamma runs a chronic course extending over years, when, after reaching a certain size, the breasts cease to enlarge. This, however, is not invariably the case, and the affection may take an acute form, during which the mamma assume great dimensions, a weight of 25 to 30 lbs. having been attained. Under these conditions the breasts are apt to be the seat of inflammation, suppuration, and even sloughing, leading to fatal septic infection. This acute enlargement is especially seen in connection with pregnancy, and the record of these cases shows a very high mortality.

Nothing definite can be asserted as to the causation of this affection. All the observed facts point to some disturbance in the cycle of the female sexual manifestations, all of which powerfully influence the mammae. The functional and sympathetic conditions of these organs under uterine and ovarian irritation are well-known and recognised. When we consider the age at which hypertrophy commences, the menstrual irregularity that constantly accompanies it, and its occurrence during pregnancy, we cannot dissociate it from sexual influences. Possibly there may be some constitutional tendency present, for racial and climatic conditions seem to favour the disease, it being much commoner in tropical climates, a great many cases having been recorded in negresses. While, however, the exact cause of the disease cannot be definitely stated, it is not difficult to realise its occurrence if we take the word hypertrophy in its etymological meaning. Strictly, it implies over-nourishment, and this in its turn must be associated with an increased supply of blood to the part. Whenever this happens for any length of time we have hypertrophy, just as is seen in the case of paired organs, according to Ribbert, when one is removed. This being so, in view of the functional and sympathetic disturbances to which the female mamma is subject, it is not difficult to understand how all the three tissues of the breast—the glandular, the fibrous and the fatty—might all be affected equally or in varying degrees, so that there might be an excessive new formation of only one of them, as, for instance, the fibrous, which seems to be the one mainly involved in this so-called hypertrophy of the mamma.
The diagnosis of this affection is not difficult as a rule. Its bilateral character, its occurrence at puberty, and the menstrual irregularity that usually accompanies it, are all distinguishing signs. On the other hand, diagnosis is not so easy when the disease is confined to one breast. In these cases the possibility of a neoplasm must be borne in mind, and it has also been pointed out that a condition resembling hypertrophy is simulated by a large retro-mammary lipoma.

Lastly, as to treatment. The most anxious cases are those associated with pregnancy, for not only do the breasts become extremely large, painful and tense, but the patient may show signs of great weakness and emaciation. As abortion commonly takes place under these conditions with fatal results, and as the foetus is ill-nourished and stunted, it would seem a clear indication to induce premature labour as soon as the hypertrophy becomes pronounced. When hypertrophy is not co-existent with pregnancy the most successful results have followed the use of iodine and thyroid extract, but in many cases these remedies have proved useless. When this is so, the faradic current has been recommended by Triper, but probably the best course is to remove the breasts as soon as their size causes any serious distress. For the reason already mentioned one breast should be taken away at first, and after an interval the other one if no improvement in it has followed the first operation. This line of treatment by excision has much to recommend it in view of the possible inflammation and sloughing of the mammae, to which reference has been made, and also of the fact that carcinoma is apt subsequently to develop in these hypertrophied breasts, as happened in the case of which Fig. 3 is an illustration, while in this present case the tendency to tumour formation was shown by the left mamma at an early stage of the disease.

ABDOMINAL HYSTEROTOMY FOR CHRONIC UTERINE INVERSION: A RECORD OF THREE CASES.¹

By F. W. N. Haultain, M.D.

Thanks to the advance of obstetrics, chronic uterine inversion is now but seldom met with, and many eminent obstetricians have never even seen a case. From this aspect, therefore, its treatment must be considered of anything but engrossing interest. On the

¹ Communicated to the Royal Society of Medicine.