Case 1: NM. UCH No. 862800 is a 15-year old student who presented with a 2-year history of progressive generalised right breast swelling and pain. There were no other associated symptoms. Her menarche was in January, 1993 (that is 8 months before presentation).

Examination revealed a young girl with a pendulous firm, non-tender multinodular right breast which extended below the umbilicus (i.e. Grade IV ptosis) with enlarged areola and effaced nipple. A hypertrophic scar was noted in the upper circumareolar region and the axilla was normal.

The left breast though finely nodulated was otherwise normal (Figure 1).

A diagnosis of unilateral right virginal mammary hypertrophy with ptosis was made. Histology report of a biopsy done at the referral hospital said "dilated ducts with 2-3 layers of cuboidal cells, densely fibrotic stroma with occasional interlobular hyalinization consistent with a diagnosis of fibroadenoma, cribriform type."

She was then offered a reduction mammoplasty and at surgery 1200 gms of breast tissue showing grossly fibrocystic changes was resected with reconstruction done according to Mc Kissock's inferiorly pedicled lipodermal flap technique.

The post-operative course was uneventful and she remained well, 9 months later without evidence of recurrence (Figures 2 and 3).
A random population survey in our environment will reveal that abnormalities of the size and position of the female breast are indeed a common problem. However, because of its non-debilitating nature, poor patients' and physicians' awareness of the condition and its treatment, poor availability of specialist plastic surgeons, low input of plastic and reconstructive surgery in many general surgery programmes and the poor socio-economic status of many of the sufferers, patients rarely present. However when the condition results in gross disproportion in size of the 2 breasts coupled with fear of malignant disease, patients can be expected to present.

Breast hypertrophy and ptosis result in great social embarrassment and psychological morbidity for the sufferers (1). They may also cause a variety of symptoms such as mastodynia, sense of heaviness and fullness, poor posture with resultant back, neck and shoulder pain, shoulder grooving, brachial plexopathy (1), pathologies of inadequate venous return (2) and stasis, such as serous exudation, eczema and ulceration, in the most dependent portion of the breast and in the infra-mammary fold.

The enlargement may also frustrate patients' ability to work and render the breasts unduly susceptible to trauma. The patients usually present on account of breast enlargement and pain as illustrated by the cases presented especially when the breast is disproportionally enlarged. Apart from social and psychological morbidity, none of our patients had other symptoms.

Current notions on the pathological basis of benign breast disorders suggest that they are mostly aberrations of normal development and involution hence the acronym ANDI. The breast undergoes several physiological changes starting from adolescence which are due to the influence of several hormonal and growth factors (3). Alterations in the absolute and/or relative concentrations of these hormones and growth factors, their timing and local breast tissue receptor defect or difference in responsiveness is believed to be responsible for these abnormalities. A classification of breast ptosis was proposed by Regnault (Table 1) which we have modified (Table 2). While this strictly applies to ptosis, it is to be noted that hypertrophy is usually accompanied by some degree of the former, and the classification also helps in the choice of operation to use for treatment.

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for the lesion produced. A consistent finding in previous reports is low plasma progesterone in the presence of normal plasma oestrogen and growth hormone levels (4).

These usually result in bilateral symmetrical breast enlargement whose history dates to adolescence, but it may occasionally be unilateral and may commence only after conception especially during the second trimester (4). Unilateral hypertrophy may be more related to increased responsiveness of local oestrogen receptors to mammotrophic factors.

The resected specimen in our patients were reported as "fibroadenoma" which is consistent with the theories of Hughes, Mansel and Weber on ANDI (5).

The treatment offered, of which many techniques have been described, has three main aims:

• removal of excessive breast parenchyma;
• correction of the displacement of the nipple-areolar complex and;
• reconstruction of the stretched skin envelope and;
• occasionally removal of eczemaous and/or ulcerated skin (1).

The two main methods of achieving this are:

• pedicled lipodermal flap operation (6,7,8) and;
• free nipple graft operations (9).

The choice of method is guided by the size of the breast; a free nipple graft being preferable in Grades III and IV as the pedicle will otherwise be too long and that may jeopardise survival of the nipple-areolar complex; the presence or otherwise of any discrete intra-glandular or skin lesions, whether it is a recurrence and the surgeons own preference. It is to be noted however that lactation was possible in about 20% of patients who had free nipple graft compared to 60% in those whose graft was pedicled. Complications, including haematoma, seroma, nipple-areolar necrosis, skin necrosis, wound infection, fat necrosis and calcifications are rare whilst nipple-areola sensitivity is usually restored to some extent in most of the patients.

A third option, simple mastectomy and insertion of breast prosthesis is best reserved for intractable recurrent lesions (2).

While reduction mammoplasty may work because it reduces breast tissue below a critical mass (much like subtotal thyroidectomy and simple goitre), it is not yet possible to determine which patients are likely to suffer from recurrent disease. None of our patients has showed any sign of recurrence but this may be related to the shortness of our follow-up period. When it occurs however, such recurrences can be managed by a repeat operation, subcutaneous mastectomy or drug therapy such as dydrogesterone (11), tamoxifen (12) and medroxyprogesterone acetate (13).

We believe that abnormalities of shape and or position of the female breast is a common and significant cause of morbidity in our environment and advocate increased awareness of the condition amongst primary care physicians whilst general surgery programmes should equip their residents to adequately tackle the problem.

REFERENCES