SHORT REPORT

Puberty gynaecomastia

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GYNAECOMASTIA, or enlargement of the male breast, occurs in two broad categories: firstly, it occurs as a physiological phenomenon in boys in their teens; and secondly in older men, usually secondary to either pre-existing pathology as in carcinoma of the adrenal gland or bronchus or testis, in renal or liver failure, or secondarily to drug therapy as with stilboestrol for carcinoma of the prostate, spironolactone or cimetidine.

Carlson reported an incidence of 32 per cent in 100 male veterans who were asymptomatic.[1]

Physiological puberty gynaecomastia has to be distinguished from primary or secondary hypogonadism, and Klinefelter's syndrome. 'The diagnosis of pubertal gynaecomastia is made by recognition of the clinical setting: onset of breast enlargement in an otherwise healthy pubertal male.'[1] It is present in 60–70 per cent of normal boys and is usually asymptomatic.

Treatment

It has usually been considered unnecessary to treat puberty gynaecomastia. Reassurance of spontaneous regression, that the patient is not becoming a female, and that it is common, is all that is usually necessary. The indications for treatment, it is suggested, are pain sufficient to interrupt normal life, including school studies, and enlargement of such an extent as to cause embarrassment, teasing by fellow pupils leading on to unacceptable psychological side-effects with consequent disruption of normal life. Two such cases in the latter category are reported here.

Secondary gynaecomastia caused by drug therapy can usually be resolved by withdrawal of the causative drug. Gynaecomastia due to primary disease has been treated by tamoxifen,[2] danazol[3] and clomiphene.[4] Side-effects noted with clomiphene were gastrointestinal upset, rashes and visual impairment. With danazol there were weight gain and oedema, increased sweating, acne in adolescents, gastrointestinal upset and muscle cramps.

Buckle[3] treated 11 cases of puberty gynaecomastia with danazol: seven showed marked regression, three moderate and one none.

Tamoxifen[5] is an antioestrogen, which is said to act by blocking receptor sites in target organs. It is used primarily in the treatment of breast cancer.

Jeffrys treated painful gynaecomastia in three adults: two cases were secondary to carcinoma of the bronchus and one to combined treatment with digoxin and spironolactone.[2] All three patients were given 10 mg twice daily for six to eight weeks, with beneficial effect and no adverse reactions. No records have been traced of puberty gynaecomastia treated with tamoxifen.

Case reports

Two cases of puberty gynaecomastia are reported below.

Case 1

Boy aged 15 years came with his parents complaining of bilateral mammary enlargement present for three months and still increasing, which caused teasing at school. This resulted in a reluctance to play games because of changing in front of other boys, and the teasing was also affecting his academic work. There were no relevant factors in his medical history. On examination, the enlarged breasts were obvious when fully clothed. On palpation there was a uniform symmetrical enlargement of both breasts with no discrete masses. They were not remarkably tender. There was no lymphadenopathy. Physical development was normal for a person of his age, the testes were well developed and secondary sexual characteristics were present. There was nothing to suggest Klinefelter's syndrome. With due warning to the parents that this was an experimental situation, tamoxifen 10 mg daily was commenced. After two weeks there was no improvement, and the dose was increased to 10 mg twice daily. Two weeks later there was a marked diminution in breast size, and six weeks later the breasts had shrunk to the normal male size and no fullness was palpable. The dose was reduced to 10 mg daily for a further two weeks and then stopped. Follow-up at two months and six months showed no recurrence. There were no unwanted effects from treatment.

Case 2

This case involving a 13-year-old boy was virtually the same. He was brought by his mother with breast enlargement that was causing embarrassment at school. Again, the breasts were visible through the clothes, but not painful. The testes were of adult size and secondary sexual development complete. Tamoxifen 10 mg twice daily was given for three weeks with no benefit; the dose was then increased to 10 mg three times daily, and after four weeks the breasts had returned to a normal male size. The dose was then progressively reduced to nil over four weeks. At follow up six months later there was no recurrence. There were no side effects from treatment.

Comment

In puberty gynaecomastia, where treatment is indicated for pain or for psychological or other reasons, tamoxifen 10 mg twice or three times daily for six to eight weeks would appear to be safe and effective.

References

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