Gynaecomastia

Definition / Supporting Information

Gynaecomastia is enlargement of the male breast tissue, defined as the presence of > 2 cm of palpable, firm, subareolar gland and ductal breast tissue. Gynaecomastia occurs during early puberty in up to 75% of males. The large majority of these do not require investigation but can be reassured.

Essential History

Ask about:

- Onset and duration of breast enlargement
- Tenderness
- Growth
- Developmental milestones
- Significant illnesses
  - Malnutrition
- Medications
  - Diethylstilbestrol
  - Digoxin
  - Domperidone
  - Chorionic gonadotrophin
  - Spironolactone
  - Isoniazid
  - Methyldopa
  - Captopril
  - Tricyclic antidepressants
  - Diazepam
  - Phenothiazines
  - Risperidone

‘Red Flag’ Symptoms and Signs

Ask about:

- Delayed developmental milestones
- Dyspraxia and co-ordination problems
- Attention problems

- Mild learning disabilities
- Dyslexia or reading problems
- Behavioural problems

Look for:

- Abnormal growth parameters and / or velocity (see Faltering Growth)
- Signs of late puberty (See Tanner Stage G4, Child Growth Foundation (pdf))
  - Gynaecomastia is a common and normal observation in early puberty (G2–3) but usually resolves by late puberty (G4)
- Small testes
- Decreased or absent facial or sexual hair

Differential Diagnosis / Conditions

- Normal feature of early male puberty
- Pseudogynaecomastia due to increased adiposity
- Klinefelter's syndrome
- Partial androgen insensitivity syndrome
- Hyperprolactinaemia
- Liver disorders
- Adrenal carcinoma
- Biosynthetic defects in testosterone production
- Increased activity of peripheral aromatase (feature of obesity)
- Medication effect:
  - Oestrogen-like effect
    - Diethylstilbestrol
    - Digoxin
  - Increase in oestrogen formation
    - Chorionic gonadotrophin
  - Inhibition of testosterone action
    - Spironolactone
    - Methyldopa
    - Phenothiazines
    - Risperidone

Investigations

To be undertaken by non-specialist practitioners (eg, General Practitioner (GP) Team) or by specialist practitioners (eg, General Paediatric / Paediatric Endocrinology Team(s)):

- None initially unless 'red flag' symptoms or signs are present, in which case:
  - Urea and electrolytes

  - Blood glucose
  - Consider thyroid function
  - Liver function tests
  - Testosterone
  - Oestradiol
  - Luteinising hormone
  - Follicle-stimulating hormone
  - Liver function tests
  - Prolactin
  - β-Human chorionic gonadotrophin
  - Ultrasonography of breast tissue
    - If breast tissue feels abnormal

Treatment Approach

To be undertaken by non-specialist practitioners (eg, GP Team) or by specialist practitioners (eg, General Paediatric / Paediatric Endocrinology Team(s)):

- All that is required in most cases is reassurance that gynaecomastia is normal and self-limiting in the majority of cases.

To be undertaken by specialist practitioners (eg, General Paediatric / Paediatric Endocrinology Team(s)):

- For unresolved or rapidly developing cases:
  - Medical therapy
    - Tamoxifen (oestrogen antagonist)
    - Danazol (gondotrphin modulator)
    - **No randomised controlled trials have assessed these drugs in children.**
  - Surgical intervention if failure to respond to removal of cause or medical treatment
    - Breast reduction surgery is not usually available in the NHS; individual funding would need to be sought.

When to Refer

Refer to specialist practitioners (eg, General Paediatric / Paediatric Endocrinology Team(s)) if:

- ‘Red flag’ signs or symptoms are present
- Gynaecomastia does not resolve after 2 years
- Gynaecomastia develops rapidly

‘Safety Netting’ Advice

Advise patient to consult GP if the breast(s) grow(s) larger or become(s) painful, or if there are any new symptoms.

Patient / Carer Information

Please note: whilst these resources have been developed to a high standard they may not be specific to children.

- What is gynaecomastia? (Web page), the NHs website
- Gynaecomastia (Information leaflet), Breast Cancer Care

Resources

Suggested Resources

Please note: these resources include links to external websites. These resources may not have national accreditation and therefore PCO UK cannot guarantee the accuracy of the content.

Tanner, JM. Growth and endocrinology of the adolescent. In: Gardner, LI, ed. *Endocrine and Genetic Diseases of Childhood and Adolescence*. Philadelphia, PA: WB Saunders; 1975.

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