Gynecomastia Surgery AHM

Clinical Indications

- Breast reduction, surgical mastectomy or liposuction for gynecomastia, either unilateral or bilateral, a cosmetic surgical procedure is considered investigational. Check plan Benefits and refer to Medical Director all requests for surgery, including Reduction Mammoplasty/Breast Reduction.
  - Medical therapy should be aimed at correcting any reversible causes (e.g., drug discontinuance). Furthermore, there is insufficient evidence that surgical removal is more effective than conservative management for pain due to gynecomastia

Evidence Summary

Background

- Gynecomastia is a very common concern of male adolescence. Sixty to 70 percent of males develop a transient subareolar breast tissue during their adolescence (Tanner Stages II & III). Causes may include testosterone-estrogen imbalance, increased prolactin levels, or abnormal serum binding protein levels.

- Gynecomastia has been classified into two types. In Type I (idiopathic) gynecomastia, the adolescent presents with a tender, firm mass beneath the areola. Most cases of type I gynecomastia are unilateral, and 20 percent of cases are bilateral. Type II gynecomastia is more generalized breast enlargement. Pseudogynecomastia refers to excessive fat tissue or prominent pectoralis muscles.

- Gynecomastia may be drug-induced. Drugs commonly associated with the development of gynecomastia include amphetamines, marijuana, mebrobamate, opiates, amitriptyline, chlordiazepoxide, chlorpromazine, cimetidine, diazepam, digoxin, fluphenazine, haloperidol, imipramine, isoniazid, mesoridazine, methyldopa, perphenazine, phenothiazines, reserpine, spironolactone, thiethylperazine, tricyclic antidepressants, tirisfluoperazine, trimeperazine, busulfan, vincristine, tamoxifen, , methyltestosterone, human chorionic gonadotropins, and estrogens. Klinefelter’s syndrome, testicular, adrenal, or pituitary tumors, and thyroid or hepatic dysfunction are also associated with gynecomastia.
- Henley et al (2007) reported that repeated topical exposure to lavender and tea tree oils may be linked to prepubertal gynecomastia (idiopathic gynecomastia).
Management of gynecomastia should include evaluation, including laboratory testing, to identify underlying etiologies. Workup of gynecomastia may include the following (GP Notebook, 2003): A detailed drug history, including list of medications, an assessment of indirect or environmental exposure to estrogenic compounds and recreational drug use. A detailed physical examination, including testicular examination and liver and thyroid function tests. Measurement of plasma gonadotrophins, human chorionic gonadotropin (hCG), testosterone, estradiol, and dehydroepiandrosterone sulphate (DHEAS), an ultrasound scan of testicular masses and computed tomography scan of adrenal glands to identify adrenal lesions.

Treatment should be directed at correcting any underlying reversible causes. If gynecomastia is idiopathic, reassurance of the common, transient and benign nature of the condition should be given. Resolution of idiopathic gynecomastia may take several months to years. In a majority of boys with pubertal gynecomastia, the condition resolves within 18 months. Medical reduction has been achieved with agents such as dihydrotestosterone, danazol, and clomiphene. However, these medications should be reserved for those with no decrease in breast size after 2 years. Surgical removal is rarely indicated and the vast majority of the time is for cosmetic reasons, as there is no functional impairment associated with this disorder.

Many men with breast enlargement are found to have pseudogynecomastia. Removing the adipose tissue in pseudogynecomastia usually has no long term effect as adipose tissue reaccumulates unless the individual loses weight. A physician-supervised diet and exercise plan may be indicated in obese patients.

Transient pain that may occur as the breast enlarges and the capsule is stretched; these symptoms may be managed with analgesics. Mental health care professionals may be consulted to address psychological distress from gynecomastia.

References


Appendix

- Drugs associated with gynecomastia:
  - Estrogens and estrogen like drugs, including:
    - diethylstibestrol
    - exposure to partners using estrogen containing vaginal creams
    - cosmetics containing estrogens
    - digitoxin
  - Drugs that enhance estrogen formation, including:
    - gonadotrophins such as hCG
    - following withdrawal of clomiphene
  - Drugs which inhibit testosterone synthesis, including
    - ketoconazole
    - metronidazole
- spironolactone
- cancer chemotherapy (alkylating agents, methotrexate, vinca alkaloids, imatinib, combination chemotherapy)

- Drugs that inhibit testosterone action, including
  - androgen receptor blockers - bicalutamide
  - 5 alpha reductase inhibitors - finasteride, dutasteride
  - H2 blockers and proton pump inhibitors
  - marijuana

- Drugs whose mechanism of action is unknown:
  - tricyclic antidepressants
  - angiotensin converting enzyme inhibitors (captopril, enalapril)
  - heroin
  - amiodarone
  - busulfan
  - methyldopa
  - captopril
  - growth hormone
  - reserpine
  - highly active antiretroviral therapy
  - calcium channel blockers (diltiazem, nifedipine, verapamil)
  - isoniazid

- Others situations which can cause or lead to gynecomastia:
  - Anabolic steroids (e.g., in body builders)
  - Healing balms, scented soaps, skin lotions, shampoos and styling gels containing lavender oil or tea tree oil

- Adapted from General Practice Notebook.
- American Society of Plastic Surgeons' gynecomastia scale:
  - Grade II: Moderate breast enlargement exceeding areola boundaries with edges that are indistinct from the chest.
  - Grade III: Moderate breast enlargement exceeding areola boundaries with edges that are indistinct from the chest with skin redundancy present.
  - Grade IV: Marked breast enlargement with skin redundancy and feminization of the breast

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