Breast Problems in Childhood

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Breast Enlargement - I

- Neonates
  - Hypertrophy related to stimulation from maternal hormones
  - Male & female infants affected
  - Associated with milky nipple discharge – “Witch’s milk”
  - Boys resolve within 2 weeks
  - Girls may take several months to resolve
- Mastitis neonatorum – Rx with antibiotics; needle aspiration is preferred if abscess forms.
  - Surgical drainage if needle aspiration unsuccessful
Breast Enlargement - II

- Prepubertal and Pubertal Children
  - Unilateral thelarche – a firm disc-like area of tissue under the areolar complex
  - Heralds the onset of puberty
  - Benign
  - Thelarche begins: 8 years to 13 years (Average – 10.3 years)
  - Bilateral premature thelarche – first symptom of precocious puberty (Girls older than 2 years)
  - USS of the uterus and pelvis
Breast mass in Female Adolescents

- Fibrocytic disease
- Fibroadenoma
- Breast trauma
- Breast Infection
- Mammary duct ectasia
- Cysts of Montgomery
- Intraductal papilloma
- Phyllodes tumour
- Malignant breast lesions - rare
Fibrocystic Disease

- Prevalence in adolescents not known
- Cause unknown
- Imbalance between oestrogen and progesterone
- Present with painful breast before menses and improvement during menstruation
- Fibrotic tissue in upper outer quadrants
- Cysts common in 30s & 40s
- Non bloody, green or brown nipple discharge
- USS may be helpful in Dx
- Treated with analgesia – NSAIDs (Ibuprofen)
- Adults – Rx with Danazol, tamoxifen, oral contraceptives, ? Elimination of caffeine
Fibroadenoma

- Most common lesion found in adolescents
- Usually asymptomatic; May cause discomfort before the onset of menses
- Rubbery, well circumscribed and mobile
- Average size – 2 to 3 cm
- Found in upper, outer quadrants
- 10 to 25% - recurrent or multiple
- Dx clinically; USS and/or needle aspiration
- Management: Most decrease in size
- Excisional Biopsy – if there is growth of the lesion, the lesion is > 5cm or persists to adulthood
Breast Trauma

- Results in fat necrosis
- Resembles a solid mass
- Can mimic a breast malignancy
- Biopsy is warranted if suspicious
Breast Infections

- Lactational mastitis
  - 2 to 3% of lactating women
  - Bacterial invasion through a fissured nipple
  - Treated initially with antibiotics
  - Drainage surgically
  - Staph Aureus, Staph Epidermidis, Streptococci
Breast Infections

- Non-lactational mastitis
  - Central (periareolar) and peripheral
  - Periareolar infections is termed periductal mastitis
  - Peripheral abscess are less common
  - May have underlying medical problem e.g. diabetes, rheumatoid arthritis
Mammary Duct Ectasia

- Distention of subareolar ducts with fibrosis and inflammation
- Associated with a nipple discharge which may be bloody
- Unilateral
- USS: dilated mammary ducts radially located around the nipple
- Self-limiting process
Cysts of Montgomery

- Periareolar glands of Montgomery tubercles
- Also known as Morgagni tubercles
- Obstruction – acute inflammation; subareolar mass (Cyst of Montgomery) & drainage of clear to brownish fluid
- Dx made clinically; Confirmed with USS
- Serial examination - >80% resolve spontaneously over 2 years
Intraductal Papilloma

- Rare, benign
- Proliferation of mammary duct epithelium
- 20 – 40 years
- 1.2% found in adolescents
- Presents with bloody nipple discharge; breast enlargement
- Bilateral – 25%
- Excision to confirm dx
- Curative
Phyllodes tumour

- Cystosarcoma phylloides
- Rare, most benign
- Older women; girls as young as 10y
- Painless
- Skin is shiny and stretched
- Bloody discharge if nipple involved
- USS: lobulations, heterogeneous echo pattern & absence of microcalcifications
- Rx: Excision
Malignant Breast Lesions

- *Primary breast cancers* are extremely rare in children and adolescents
- Juvenile secretory carcinoma (80%), intraductal carcinoma, Rhabdomyosarcoma & Lymphoma
- Most common malignant mass is a metastatic lesion
- Hodgkins, Non-Hodgkins, neuroblastoma, HCC and Rhabdomyosarcoma
Gynaecomastia

- Majority related to puberty
- 10 – 12 years of age
- Due to a transient increase in estradiol
- Serum estradiol concentrations rise to adult levels before the testosterone conc.
- 85% to 90% resolve within 6 months to 2 years of onset
- Recommend observation alone as most will spontaneously regress
- If persistent, then subcutaneous mastectomy