Inguinal Hernias and Hydrocoeles

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Basic information

- Caused by a patent processus vaginalis (PPV). If the PV does not close at all, intestine may prolapse into the inguinal canal (hernia). If the PV closes partially, there may be no hernia, but peritoneal fluid can run down into the scrotum (hydrocoele).
- Conditions which result in increased peritoneal fluid being produced (e.g. viral infections) can result in an apparent "acute onset" of hydrocoele.
- Most inguinal hernias occur in boys (8:1 M:F ratio).
- 15% cases bilateral. More often bilateral in girls.
- Female infant inguinal hernias are rare. However, there is a potential for ovarian incarceration within the hernia sac and this is a SURGICAL EMERGENCY. **Beware the inguino-vulval mass** (i.e. equivalent to the inguino-scrotal mass).

Key features of inguinal hernia and hydrocoele

FEATURE	HERNIA	HYDROCOELE
Location of swelling	From mid-inguinal point (deep ring), down inguinal canal+/- into scrotum or labia	Usually scrotum, may extend upwards to inguinal canal, or may be cystic swelling IN canal (encysted hydrocoele)
Tenderness	Usually only if incarcerated	Not tender
Colour over swelling	May be red if incarcerated	May appear blue through scrotal skin
Transillumination	Not in older children but BEWARE –hernias in infants may transilluminate	Usually transilluminates
History and appearance	Appears when straining, coughing or crying.	Oftyen appears or gets larger in evenings.
Reducibility	May go away spontaneously or with gradual pressure when lying down. If irreducible and tender – incarcerated - URGENT	Not usually reducible
Natural history	May get larger or incarcerate	May close spontaneously up to 2yrs age
Management	Operative in all cases	Conservative until > 2yrs age
Referral	Routine surgical appointment unless incarcerated	Routine surgical appointment >2yrs age

Management of irreducible or tender inguinal hernia

- Irreducible or incarcerated inguinal hernia is AN EMERGENCY
- The main organ at risk is the gonads (male or female) – after even 2 hours of incarceration, the blood supply to the testis or ovary may be compromised, ischaemia occurs and the gonad may atrophy
- Reduction is therefore the key priority – ALL PAEDIATRICIANS AND GENERAL SURGEONS SHOULD KNOW HOW TO REDUCE A HERNIA, EVEN IN INFANTS
- Reduction should be attempted with the child lying flat, analgesia +/- monitored sedation (ask CED senior doctor for advice).
- The time taken for transfer from another hospital may be enough to cause gonadal infarction – referring doctors should be strongly encouraged to achieve reduction urgently before transfer.
- If reduction cannot be achieved, immediate surgery is required
- Even if reduction IS achieved, surgery should be performed on the next available elective list. This is especially important in small babies.