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Fused labia

Fused labia (or 'labial adhesions') is an acquired condition which affects otherwise normal girls, usually in the first few years of life.

How it Occurs Adherence of the labia is believed to develop when the inner surfaces of the labia minora become irritated or inflamed. The 'raw' areas on each side stick together, and when re-epithelialisation (growth of skin cells) occurs, a skin-bridge is formed between the two sides.

Diagnosis The diagnosis often is made during routine examination by a community health nurse or doctor. Very occasionally, it is a contributing cause of recurrent urinary tract infections or minor but troublesome wetting. In extreme cases, it may cause difficulty with micturition.

Labial adhesions can be demonstrated by gently parting the labia majora laterally. This manoeuvre exposes the fused labial minora (Figure 1). The introitus and urethral meatus are obscured by the labial adhesions. It may be confused with vaginal atresia, imperforate hymen or an intersex abnormality.

Treatment Labial adhesions are best treated by a paediatric surgeon who carefully disrupts the adhesions and separates the labia (Figure 2). This is usually performed as an outpatient procedure without an anaesthetic and without causing significant discomfort (except in the older girl, in whom a general anaesthetic is sometimes required).

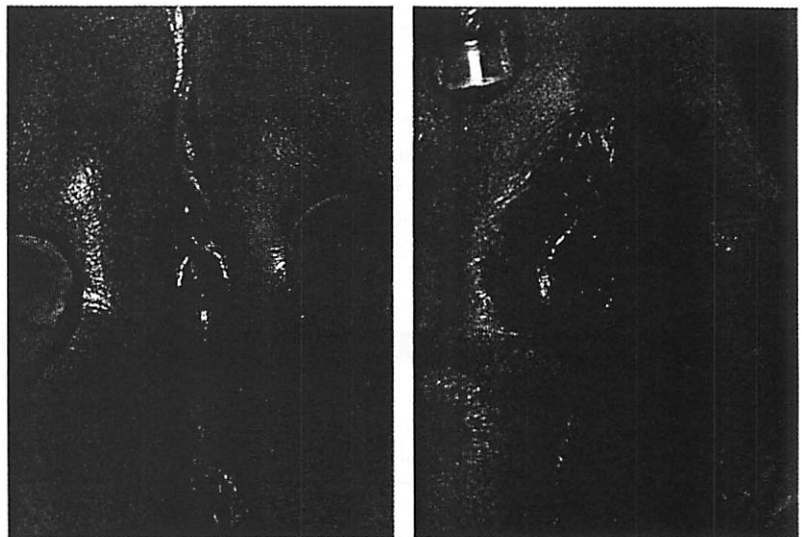


Figure 1: Labial adhesions can be demonstrated by gently parting the labia majora.

Figure 2: Appearance after separation show the labial adhesions. Note the raw area on the inner surface of the labia minora.

The mother (or other care-giver) is then taught how to apply Vaseline ointment to the raw area for several weeks until the skin is fully healed. This reduces the likelihood of re-fusion.

Topical application of oestrogen cream, although employed by some clinicians, is discouraged because of the skin-changes it may produce, and because it is often ineffective.

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Undescended testis

Undescended testis (or 'cryptorchidism') is a term used to describe the testis that has not descended into, and does not reside in, the scrotum.

Prevalence and Importance Undescended testes occur in about 2% of boys. It is more common in premature infants. Spontaneous descent of testes is unlikely beyond three months post-term.

Cryptorchidism is important to detect because if left untreated, it may result in reduced fertility. It is believed that the higher temperature to which an undescended testis is subject impairs spermatogenesis and ultimately damages the testis.

Technique of Diagnosis The diagnosis is made by examining the inguinoscrotal region (Table 1). Normally the testis should be found within the scrotal sac. In cryptorchidism the scrotum looks empty (Figure 1) and is often under-developed.

Table 1

UNDESCENDED TESTIS: AIMS OF CLINICAL EXAMINATION

Identify the presence of a testis
Determine its lowest position in the line of normal descent
Confirm it will not reside in the scrotum spontaneously.

The testis can be located when the left hand 'milks' the testis down the line of the inguinal canal towards the scrotum, while the thumb and index finger of the right hand invaginates the scrotum to grasp it (Figure 2(a),

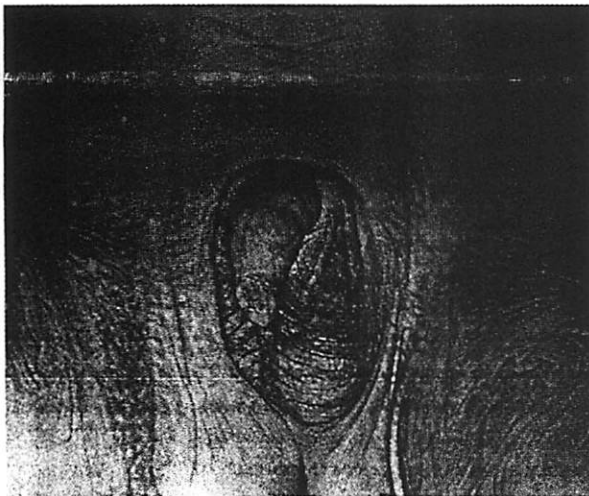


Figure 1: Right undescended testis. The right hemiscrotum looks empty and under-developed.

2(b)). The testis is then gently pulled towards the scrotum. The testis is undescended if it cannot be brought into the scrotum or will not remain there.

Difficulties in Assessment The greatest difficulty in assessment is distinguishing the markedly retractile testis from the undescended testis. In most normal boys the testis resides in the bottom of the scrotum, but the cremasteric reflex may cause it to move upwards, sometimes completely out of the scrotum. Although the retractile testis may be found initially outside the scrotum, it can be brought down into a normal scrotal position and would be expected to stay there until the cremasteric reflex is stimulated (Table 2).

An undescended testis will not stay in the scrotum spontaneously, and usually cannot even be coerced beyond the neck of the scrotum. It may be smaller than a normal testis on the other side. Sometimes the testis cannot be found at all – the 'impalpable testis'. These testes are usually located in the inguinal canal or abdomen; occasionally there is no testis.

Timing of Treatment Ideally, undescended testes should be brought down into the scrotum between nine and twelve months of age. Boys with cryptorchidism should be referred to a paediatric surgeon before this time. Unfortunately, in many boys the diagnosis is not made until they are much older. The later the testis is brought down, the more likely it is that its spermatogenic function will be impaired (except where it has ascended – see below).

Operation The operation to bring a testis into the scrotum is called an 'orchidopexy'. It is performed as a day-case procedure and the child normally leaves hospital within an hour or so of surgery.

Results of the Surgery In general, the results are excellent when the procedure is performed by a specialist paediatric surgeon. There are very few complications of the actual surgery or anaesthesia. The ultimate function of the testis is influenced by the age at which the orchidopexy is performed.

Ascending Testis There is a group of boys who have descended testes at birth, but during mid-childhood – the period when the cremasteric reflex is at its strongest – the testes appear to ascend. These children have normal-sized but markedly retractile testes, whose position gradually becomes less satisfactory as they grow. They should be reviewed on an annual basis by a paediatric



Figure 2: Technique of examination of left testis: (a) the left hand 'milks' the testis towards the scrotum along the line of the inguinal canal, and (b) the testis is then grasped through the scrotal skin with the right hand.

surgeon, and if and when they become obviously undescended, an orchidopexy is indicated. Their fertility expectation is normal.

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Table 2

UNDESCENDED TESTES VERSUS RETRACTILE TESTES		
Feature	Undescended Testis	Retractile Testis
Can be brought fully to bottom of scrotum	No	Yes
Remains in scrotum spontaneously for a period before retracting	No	Yes
Resides spontaneously in scrotum at times	No	Yes
Size	Normal or small	Normal
Age of diagnosis	Usually evident from 3 months post-term	Most retractile during mid-childhood

Encopresis

Encopresis is defined as the regular and involuntary passing of faeces into the colon beyond the age of four years. While exact prevalence rates in Australia are unknown, it is a not an uncommon condition. Boys outnumber girls by a factor of 3-5 to 1.

Encopresis is a distressing condition for the child and his or her family. The condition has ramifications beyond the obvious ones of personal cleanliness and hygiene. Children with encopresis invariably have poor self confidence and esteem, difficulties with peer relationships, and often problems at school. Their uncertainty about bowel control means that they are reluctant to sleep over at friends' houses, are anxious about going to school camps, and approach most activities with a degree of trepidation.

Etiology Usually there are a number of factors involved in the development of encopresis. Some children have a long history of constipation, often with painful defaecation and sometimes with the development of an anal fissure. This results in a cycle of holding on because of a fear of painful defaecation. Other children are 'too

busy' to go to the toilet on a regular basis, so they tend to hang on until the sensation passes. A number of children do not like to go to the toilet at school or if they are away from home, so again the pattern of not responding to the urge to stool develops. Some children seem to have a problem of bowel evacuation, with an inability to properly coordinate the internal and external sphincters and a consequent build up of stool.

Irrespective of the contributing factors, the common final pathway for the majority of children is faecal

retention, rectal dilatation and insensitivity to the need to evacuate their bowel. The frequency of soiling varies from several times a week to several times per day, often predominantly in the afternoon or early evening.

The differential diagnosis of simple encopresis includes Hirschprung's Disease and if there is a lifelong history of severe constipation then these children need to be referred for further assessment. Encopresis, or more accurately late toilet training, is common in children with developmental delay and in children with severe emotional problems. Some children may soil as a manifestation of significant family dys-function, and a small proportion of children seem to have some inherited problems with bowel motility.

Assessment History taking elicits possible contributing factors, the pattern of soiling, the consequences of soiling for the child and family, and information about how the child and family cope with the soiling. A dietary history is also important. Physical examination should rule out significant developmental delay or neurological abnormality. Sometimes abdominal distention is evident and stool can be palpated in the left iliac fossa. A rectal examination is generally unhelpful – it provides no accurate information about the degree of retention, does not influence management, and causes discomfort to the child.

A plain x-ray of the abdomen provides an accurate estimate of the degree of faecal retention, and is an important part of the assessment.

Management The emphasis in the treatment of encopresis is to focus on the relief of symptoms – ie reduce the soiling. Other issues of behaviour and self esteem are usually secondary and improve as the encopresis improves. The management regime is multimodal and comprises the following components:

- Careful explanation (demystification) of the

condition in terms that the child as well as the family can understand. The liberal use of drawings and diagrams is often helpful. It is especially important to avoid blaming the child. An explanation of the treatment program and necessity for compliance with the regime and for follow up is important.

- A high fibre diet, with lots of fluids.
- Regular sitting on the toilet after each meal. It is usually best if the child sits on the toilet immediately following a meal (to take advantage of the gastro-colic reflex), irrespective of whether or not the child needs to go. It is often helpful to support this with a behaviour modification regime utilising a diary and star chart.
- Medication – most children do better if medications are used, for a period of three to six months in most instances. Paraffin oil or cathartics such as senna or bisacodyl can be purchased over the counter and given on a daily or twice daily basis to assist in bowel evacuation.

The aim of treatment is to evacuate the bowel and keep it empty. In most instances sensation slowly returns over a period of months, although sometimes follow up and treatment for years is necessary.

Children should be referred for specialist consultation if they are resistant to treatment, if they have a history of severe constipation, or if Hirschprung's Disease is suspected.

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