

Royal College of Paediatrics and Child Health  
In collaboration with:  
The Royal College of Physicians of London,  
and its Faculty of Forensic and Legal Medicine

# The Physical Signs of Child Sexual Abuse: an evidence-based review and guidance for best practice (2008)

## **Interim statement** Issued July 2011

### **1. Introduction and purpose**

The RCPCH is currently updating the above publication and intends to publish a revised second edition in April 2013. The 2008 publication was based on a literature search from pre-1966 to July 2007. This interim statement reports the findings of the first phase of the update. It is based on a review of the literature from 2003 to 2009 and addresses comments made during the consultation in 2009 with potential users.

The Interim statement addresses key information of relevance and importance to the interpretation of physical signs. Typographical and other minor changes which do not affect the meaning are not included.

The interim statement includes:

- Updated evidence review
- Update on Good Practice
- Agreed statement on Female Genital Mutilation

This statement should be read alongside the current publication. Readers are reminded that new evidence, at any time, could invalidate the findings and it is therefore the reader's responsibility to keep up to date with the literature.

### **2. Evidence review**

#### **2.1 Methodology**

Searches were re-run on Medline database (2003 to December 2009), PreMedline and EMBASE (2003 to April 2009). Any new studies were identified using the process described in Chapter 3 of Edition 1 of the publication ([www.rcpch.ac.uk/csa](http://www.rcpch.ac.uk/csa)).

## 2.2 Updates

### CHAPTER 4 - GENITAL SIGNS OF SEXUAL ABUSE IN GIRLS

#### 4.6 Genital lacerations/tears (pages 27-32)

#### 4.7 Healing/healed genital injuries (pages 32-37)

Page 37, a new section has been added after 4.7.15

Two studies by McCann (2007a and 2007b) provide important information documenting the healing of accidental and non-accidental genital injuries in 113 prepubertal and 126 pubertal girls who were examined between 1 hour to 3 days post injury. Whilst the studies focused on the healing process and did not attempt to separate accidental injuries from those caused by sexual abuse / assault, the results corroborate previous observations that both hymenal and non-hymenal genital injuries heal remarkably well and tend to leave little, if any, evidence of previous trauma.

During the healing process, hymenal injuries healed at various rates. The majority left no evidence of physical signs except for lacerations. Petechiae disappeared by 3 days; abrasions and “mild submucosal haemorrhages” were not detected after 4 days. “Marked” haemorrhages resolved by 15 days while a “blood blister” in an adolescent was found to persist at 34 days. Hymenal lacerations appeared to undergo changes in both depth and configuration for up to 3 to 4 weeks. In both prepubertal and pubertal girls, the final outcome of a hymenal laceration was determined by the depth and configuration of the injury. No scar tissue was found on the hymen in any of the prepubertal and pubertal girls (McCann, 2007a).

Non-hymenal injuries affected the labia majora, labia minora, perineum, posterior fourchette, vestibule and fossa navicularis. These also healed at varying rates depending on the type, location and severity. Petechiae disappeared by 24 hours, whereas blood blisters were detected at 30 days in a prepubertal girl and 24 days in a pubertal girl. Abrasions disappeared by the third day after injury. Oedema was no longer present by the fifth day. Ecchymosis (bruising) resolved within 2 to 18 days depending on the severity. Submucosal hemorrhages of the vestibule and fossa navicularis resolved between 2 days and 2 weeks. The depth of a laceration determined the time required for it to heal. Superficial vestibular lacerations healed in 2 days, whereas deep perineal lacerations required up to 20 days. Scar tissue formation was an infrequent finding and detected most commonly in the only in girls who sustained a deep laceration. Scar tissue was recorded in girls who had been followed up for >30 days and were seen in the perineum (6/8 prepubertal girls, 75%); posterior fourchette (7/14 prepubertal girls, 50% and 1/4 pubertal girls, 25%) and fossa navicularis (2/10 prepubertal girls, 20% and 2/7 pubertal girls, 29%). (McCann, 2007b).

Whilst these studies do not meet the original criteria (see chapter 3 of Edition 1: [www.rcpch.ac.uk/csa](http://www.rcpch.ac.uk/csa)), the findings are important to note. Further information on healing will be included in the second edition.

## 4.8 Clefts/notches

Page 40, Section 4.8.10, line 1

"Two studies that followed cases to healing described...." is replaced with: "**Three** studies that followed cases to healing have described... ". The third study is reference 33 (see Reference list page 160).

Page 41, Key messages, bullet point 8

"Hymenal lacerations/tears can heal to leave notching/narrowing on the hymen." is replaced with: "Hymenal lacerations/tears can heal to leave **a notch** on the hymen."

Page 42, Evidence statement

An additional statement has been added: "**Hymenal lacerations/tears can heal completely without scarring or may heal to leave a notch.**"

Page 42, Issues for clinical practice

A fifth bullet point has been added:

"Normal examination does not exclude previous injury as many genital injuries heal without physical signs."

## CHAPTER 5 - ANAL SIGNS OF CHILD SEXUAL ABUSE

### 5.6 Reflex anal dilatation

Page 84, Paragraph 5.6.4, line 4

'Anal gaping may be seen during general anaesthesia, with the use of relaxant drugs and in haemolytic uraemic syndrome, and also as a post mortem finding' has been replaced with:

"Anal gaping may be seen in haemolytic uraemic syndrome, and also as a post mortem finding. Anaesthetic agents and regional anaesthetic techniques (such as spinal, epidural and caudal anaesthesia) will cause variable degrees of relaxation of voluntary muscle and commonly cause reductions in anal tone". (Schweiger, 1979; Verghese, 2002; Kausalya, 1994).

Page 85, Paragraph 5.6.9

The following sentence has been added to the end of the paragraph:

"The study uses the terms "external dilatation" and "intermittent anal dilatation" but these terms are not clearly defined." See also Myhre (2001) study [68] in Table 6.

Page 86, Section 5.6, Table 6

The following points should be noted in relation to the reporting of the Myhre (2001) study [68] in Table 6:

- 'External dilatation' and 'intermittent anal dilatation' - see comment above.
- Dilatation is reported differentially depending upon the position of examination. In the knee-chest prone position this is reported as 4.7% (13/276) and in the left-lateral as 0.7% (2/305). No data are available in the supine position.

Page 87, Section 5.6, Key Messages, bullet point 5

"There is paucity of data on the prevalence of reflex anal dilatation in children selected for non-abuse. However, in one study of children selected for non-abuse, it was noted in 5%." is replaced with:

"There is paucity of data on the prevalence of reflex anal dilatation in children selected for non-abuse. However, in one study of children selected for non-abuse, it was noted in 4.7% in the knee-chest prone position and 0.7% in the left lateral position."

## **CHAPTER 8 - THE EXTENT OF ANOGENITAL SIGNS AT EXAMINATION**

P120, Issues for clinical practice

A third bullet point has been added:

"Normal examination does not exclude previous injury as many genital injuries heal without physical signs."

## **CHAPTER 9: GOOD PRACTICE**

### **9.5 Examination technique**

Page 131, Paragraph 9.5.7

The following has been added at the end of the paragraph:

Boyle et al (2008) compared the effectiveness of 3 different examination methods (supine labial separation, supine labial traction and prone knee-chest position) to detect both acute and non-acute genital injuries in prepubertal and pubertal girls suspected of having been sexually abused. While no single technique detected all the injuries, the use

of the multi-method examination approach was a valuable adjunct in the evaluation of both the prepubertal and the pubertal girls' genitalia, particularly in the identification of a hymenal laceration. However, this study was designed primarily to evaluate the healing process and did not assess the acceptance rate by the patients, particularly the adolescents. The Foley catheter is an appropriate method to use to examine pubertal girls. The knee chest position is an appropriate technique to examine prepubertal girls.

## 9.9 Testing for sexually transmitted infections

Page 139, Paragraph 9.9

"This is a rapidly changing field. For the most up-to-date information, please refer to the BASHH Children and Young People Guidelines (<http://www.bashh.org>)."

is replaced with:

"This is a rapidly changing field. For the most up-to-date information, please refer to the BASHH Children and Young People Guidelines (<http://www.bashh.org>) which have now been updated as of 2010 (Rogstad 2010). Additional new information (Hammerschlag 2010) supporting the use of NAAT testing methods, and also their limitations, as discussed in the 2010 guidelines and their interpretation has recently been published."

## 9.12 Female Genital Mutilation

This is a new section. Guidance has also been published by the UK Foreign & Commonwealth Office: [www.fco.gov.uk/fgm](http://www.fco.gov.uk/fgm)

# References

### Studies meeting the inclusion criteria:

Watkeys JM, Price LD, Upton PM, Maddocks A. The timing of medical examination following an allegation of sexual abuse. *Archives of Disease in Childhood* 2008; 93(10): 851-856

### Other useful studies:

Boyle C, McCann J, Miyamoto S, Rogers K. Comparison of examination methods used in the evaluation of prepubertal and pubertal female genitalia: a descriptive study. *Child Abuse and Neglect* 2008; 32 (2): 229-243

Hammerschlag M, Cuillen CD. Medical and legal implications of testing for sexually transmitted infections in children. *Clin Microbiol Rev* 2010; 23 (3): 493-506

Foreign & Commonwealth Office. Multi-agency practice guidelines: Female Genital Mutilation. HM Government; 2011. Available from: [www.fco.gov.uk/fgm](http://www.fco.gov.uk/fgm)

Kausalya R, Jacob R. Efficacy of low dose epidural anaesthesia in surgery of the anal canal-a randomized controlled trial. *Anaesth Intensive Care* 1994; 22(2): 161-4. Cited in: Royal College of Paediatrics and Child Health. *Child Protection and the Anaesthetist: Safeguarding Children in the Operating Theatre*. Royal College of Paediatrics and Child Health; 2006. Available from: [www.rcpch.ac.uk](http://www.rcpch.ac.uk)

McCann J, Miyamoto S, Boyle C, Rogers K. Healing of hymenal injuries in prepubertal and adolescent girls: a descriptive study. *Pediatrics* 2007; 199: 1094-1106.

McCann J, Miyamoto S, Boyle C, Rogers K. Healing of nonhymenal genital injuries in prepubertal and adolescent girls: a descriptive study. *Pediatrics* 2007; 120(5): 1000-1011.

Myhre AK, Bemtzen K, Bratlid D. Perianal anatomy in non-abused preschool children. *Acta Paediatr* 2001; 90 (11): 1321-1328.

Rogstad K, Thomas A, Williams O. National Guidelines on the management of sexually transmitted infections and related conditions in children and young people. *Int J STF & AIDS* 2010; 21: 229-241

Royal College of Paediatrics and Child Health. *The Physical Signs of Child Sexual Abuse: An evidence-based review and guidance for best practice*. Royal College of Paediatrics and Child Health; 2008.

Royal College of Paediatrics and Child Health. *Child Protection and the Anaesthetist: Safeguarding Children in the Operating Theatre*. Royal College of Paediatrics and Child Health; 2006. Available from: [www.rcpch.ac.uk](http://www.rcpch.ac.uk)

Schweiger, M. Method for determining individual contributions of voluntary and involuntary anal sphincters to resting tone. *Dis Colon Rectum* 1979; 22(6):415-16. Cited in: Royal College of Paediatrics and Child Health. *Child Protection and the Anaesthetist: Safeguarding Children in the Operating Theatre*. Royal College of Paediatrics and Child Health; 2006. Available from: [www.rcpch.ac.uk](http://www.rcpch.ac.uk)

Verghese ST, Mostello LA, Patel RI, Kaplan RF, Patel KM. Testing anal sphincter tone predicts the effectiveness of caudal analgesia in children. *Anesth. Analg* 2002; 94:1161-4. Cited in: Royal College of Paediatrics and Child Health. *Child Protection and the Anaesthetist: Safeguarding Children in the Operating Theatre*. Royal College of Paediatrics and Child Health; 2006. Available from: [www.rcpch.ac.uk](http://www.rcpch.ac.uk)

**For further information please visit: [www.rcpch.ac.uk/csa](http://www.rcpch.ac.uk/csa)**