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Full Length Research Paper

Perineo-genital injury secondary to sexual assault in a 3-month old female

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Traumatic injuries to the perineum and external genitalia in children may be accidental, self-inflicted or the result of assault. Sexual assaults account for majority of the injuries in developed countries while accidental injuries occur more in underdeveloped and developing countries. The injuries may be isolated or associated with trauma to other areas of the body. Perineal injuries constitute 0.2% of the injuries in girls under the age of 15 years while paediatric genital injuries have been reported to represent 0.4 to 8% of childhood trauma. Although, paediatric genital and perineal injuries represent a small proportion of overall injuries seen in childhood; their continued increase in incidence and the resulting morbidity and occasional mortality present them as a public health condition that needs adequate awareness and dissemination of information that could help in preventing and managing these conditions when they occur. The index case resulted from sexual assault in a three-month old baby girl with attendant severe perineal and genital injuries. Perineal and genital injuries in children result from trauma secondary to accidents, self-inflicted injuries and sexual abuse. The importance of this condition is the steady rise in incidence and the resultant morbidity and mortality that may accompany these injuries. However, prompt attention, meticulous repair of all identified injuries usually guarantee satisfactory outcome.

Key words: Perineal, genital, female, 3-month, child, secondary, sexual, injury.

INTRODUCTION

Genital injuries in female children and adolescents may occur accidentally or as a result of an act of violence. Mechanisms of injury include road traffic accidents, straddle type of injuries and sexual abuse. In sexual abuse, the offence may be committed by a stranger or sometimes by an acquaintance of the family (Wynne, 1980; Ameh, 2000; Black et al., 1982). The actual rate of sexual abuse in children and adolescents is often higher than reported. The duration between the injury and the patient's presentation at the hospital is important in terms

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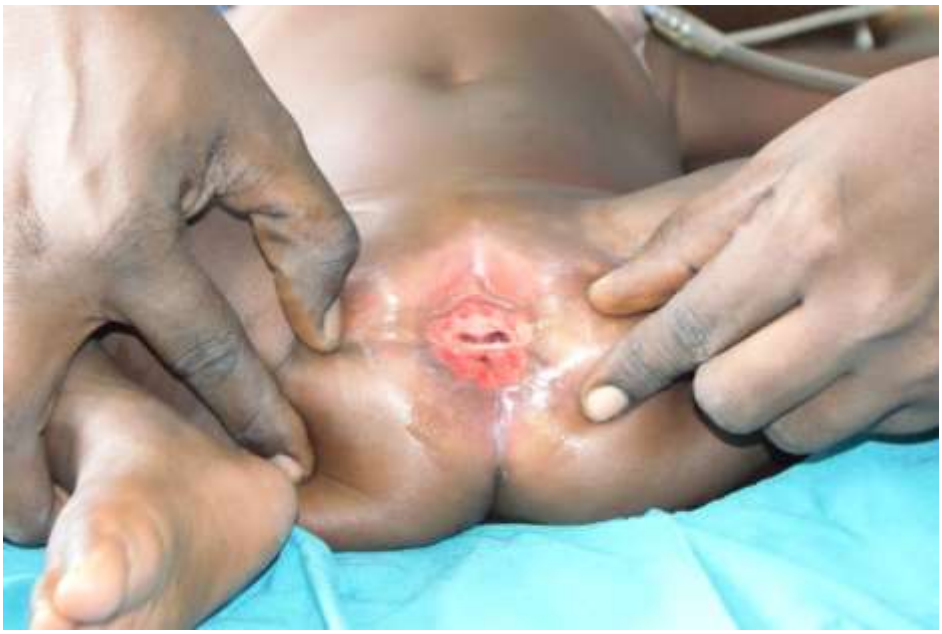

Figure 1. Perineo-genital injuries at presentation.

contusions to destructions of the rectum and formation of a recto-vesical fistula. Treatment may be primary or delayed repair and these range from local wound care to diverting colostomy and secondary sphincteric repair and rectal reconstruction with an endorectal pull-through procedure (Onen et al., 2005; Sylvester et al., 1969).

The index case was the case of sexual assault at the age of three months. She sustained perineo-genital injuries which were initially repaired at a secondary health centre. However, the primary repair broke down and there was associated incontinence of faeces. This condition required a diverting colostomy, sphincteric repair and vaginoplasty.

CASE REPORT

This is a case of perineal and genital injuries in a 3-month old female child who was brought to the paediatric surgical outpatient (PSOP) clinic with complaints of anal and vaginal injuries from a sexual assault at the age of 3 months by a 21-year old tailor apprentice.

The incident was said to have occurred when the patient was kept alone in the house while her mother went outside their living room to spread washed clothes in the compound. She also had injuries around the anus and vagina which was associated with significant blood loss. Following this incident, she was rushed to a General Hospital, where a primary repair was done but this later broke down. As a result of the wound breakdown and the uncontrolled passage of faeces from the anal orifice, she was referred to our health facility (Olabisi Onabanjo University Teaching Hospital, OOUTH) for expert management.

At the OOUTH, relevant history surrounding her presentation as mentioned earlier was obtained and documented. Physical examination revealed a female infant, afebrile, not pale, anicteric and well hydrated with normal vital signs. Vaginal inspection showed distorted vulva with faecal matter around the vaginal orifice. Rectal examination showed disruption of the anal orifice which was in open communication with the vaginal opening (Figure 1). A provisional diagnosis of recto-vaginal fistula secondary to sexual assault was made.

She was prepared for examination under anaesthesia (EUA) and the intra-operative findings were widespread erythematous perineal skin, faecal effluent on the vulva, vestibule and vagina, torn hymen, severe disruption of the anal sphincter and vaginal mucosa appearing normal. A definitive diagnosis of faecal incontinence secondary to anal sphincteric injury from sexual assault was made. A second procedure (colostomy) (Figure 2) was carried out one week after examination under anaesthesia to divert faecal matter from the perineal wounds and the urogenital system. Following an uneventful postoperative period, she was discharged to the paediatric surgical out-patient clinic to await repair of the genital and perineal injuries (Figure 3).

Definitive repair was done about four years from the first visit because her parents absconded from clinic follow-up after establishment of colostomy; this repair involved Posterior Sagittal Ano-rectoplasty plus Perineal Body Reconstruction and Vaginoplasty (Figure 4). She did well postoperatively and was discharged to the

Figure 2. Patient on devine colostomy.

Figure 3. Pre-operative appearance of the patient's external genitalia and perineum.

paediatric surgical out-patient clinic to prepare for examination of the repaired genital and perineal injuries and closure of colostomy.

Finally, examination of perineal and genital wounds after repair revealed satisfactory outcome with good sphincteric activity and subsequently the colostomy was closed. This patient was last seen at our clinic at the age of 7 years with good bowel control.

DISCUSSION

The index case involved a three month old female child who was sexually assaulted while the parents were absent from home.

Genital injuries are common in adolescent and children. Sexual assault is the most common cause of genital injuries in developed countries while accidents account

Figure 4. Post-operative appearance of the female external genitalia and perineum, with complete separation of the female external genitalia and anal orifice.

for majority of the cases in underdeveloped and developing countries (John and Joan, 1993).

Controversy persists regarding the causes of and the morbidity associated with blunt perineal injuires in children (Hashish, 2011). The mechanism and extent of perineal injury, surgical repair and associated injuries are important considerations when dealing with children who sustained perineal and genital injuries. Motor vehicular crashes account for most of the perineal injuries in children aged 10 to 16 years while falls and bicycle-related injuries were significantly more prevalent in children less than 9 years of age and sexual assaults in children 0 to 4 years. Head trauma is usually the most common associated injuries in children less than 15 years of age (Hashish, 2011; Kaplanoglu et al., 2014).

Goals of management of children with genital and perineal injuries include acute phase management of injuries which involves adequate history taking, thorough physical examination of the entire system and the perineum. Visual examination of the perineum often yield satisfactory findings and information about the type and extent of these injuries but this could be improved by using magnifying aids, examination under sedation or general anaesthesia. Other important steps in managing these patients are prevention of transmissible diseases and pregnancy, collection of forensic evidence, management of social circumstances, physical and psychosocial rehabilitation (Graeme, 2004).

The index case was initially attended to by a general practitioner where history of injury and findings on physical examination were documented and followed by emergency care. At our facility, she was first taken to the of treatment and medicol-legal situations (Campbell et al., 2010). Pediatric trauma involving the perineal region is rare in pre-pubertal girls with a reported incidence of 4 to 6%. Targets of sexual abuse are children less than 10 years of age and below with the 4 to 6 years old at the highest risk. Most of the victims suffer perineo-genital or perineal injuries (Vishrut et al., 2016; Martin, 1989).

The incidence occurs across different countries and continents in the world. There are antecedent conditions that identify the children at risk, recognize local pattern of victim-assailant relationship in every environment and to attempt to determine the incidence of complications, including pregnancy, transmission of infectious diseases such as HIV, gonorrhea, hepatitis and physical trauma. Sexual abuse inflicts both physical and post-assault emotional trauma for the victim and the family (Nancy, 2005; Asindi et al., 1989).

Perineal injuries following trauma are associated with a significant degree of tissue tear, which is due to rapid and excessive stretching of the tissues against fixed bone structure of the pelvis. The extent of stretching determines the depth and extent of laceration and may involve the genital tract, urinary tract, GIT or a combination of the three (Hashish, 2011).

Quick evaluation and documentation of the injury type should be done and decision taken regarding mode of management in order to achieve a favorable outcome. Injuries vary from simple anal laceration, perineal gyneacology unit where physical examination and examination under general anaesthesia were carried out and their findings documented. When this patient finally got to us, we prepared her for repeat examination under

anaesthesia and establishment of a defunctioning colostomy.

Female genitalia is more fragile in prepubertal period because of low levels of estrogen perineal and genital injuries in this age-group tend to be severe and may require repair more often than older children where the genitalia is more resistant to injury. Furthermore, perineal injuries in children under 4 years should raise the suspicion of abuse. Incidence of genital injuries after rape and sexual assault ranges from 50 to 90%. Abuse against the child and adolescent is a public health issue of great social and family impact and may have different consequences. Intra-familial sexual abuse is difficult to document and manage because the child must be protected from additional abuse and coercion not to reveal or deny the abuse in order to preserve the family unit (Michael et al., 2000; Jones and Bassy, 1991).

Pattern of injury includes first degree (muscles intact), second degree (muscles torn) and third degree (extending into the rectum). Bruising, laceration or penetration will depend on the nature of the object inflicting the injury. The index case sustained second degree perineal and genital injuries which broke down after an initial attempt at repair by a general practitioner. However, combined management by the gyneacological and paediatric surgical units of our hospital yielded a satisfactory outcome. Evaluation under anesthesia to identify and document severity of injury is important and immediate local repair with diversion stoma and secondary repair gives excellent cosmetic and continence results (Bakal et al., 2016; Nancy et al., 1998).

Conclusion

Perineal injuries in children occur worldwide and often result from road traffic accidents, falls and sexual assault. Reports on these injuries especially those resulting from sexual assaults are not common, hence the need to report this case to show the steps involved in managing these patients and to disseminate information on the rising incidence of this type of injury in our society.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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