



RUBBER BAND SYNDROME :A Case Series.

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KEYWORDS :

INTRODUCTION:

Extremity foreign body in a child has propensity of getting missed or mistaken diagnosis. We report our experience of extremity foreign body trauma in order to increase awareness of this disease entity. Postremoval, the wound healing was uneventful in all patients. Foreign body-related extremity trauma in children is a rare event. It has its own set of characteristics and differential diagnosis. Familiarity with the regional practices and customs is must to establish the circumstances/nature of the foreign body injury. The foreign body should preferably be removed in a well-equipped setting.

MATERIAL AND METHODS:

Three case histories of patients who presented to OPD at GMC Jammu having similar symptoms were reviewed. The clinical, roentgenographic and ultrasonographic records were examined and particular attention was paid to the presenting symptoms.

RESULTS:

Patient ranged from 2 to 8yrs. Rubber band, "dhaga," were more frequently associated with chronic inflammatory symptoms such as abscess and discharging sinus. The three patients with rubber band/"dhaga" presented with characteristic circumferential scar and/or discharging sinus over the wrist and forearm region. The duration of symptoms in these patients usually extended several months.

PROGRESSION OF THE SYMPTOMS:

Both Patients had history of having RAKHI tied to wrist after which the kids put on rubber bands which went unnoticed. Sometimes, the foreign body is detected first time only on advanced imaging. [5] The self-removal of thread is considered inauspicious and therefore it remains on the child's wrist for long time and often forgotten. The constriction of unyielding rubber band gradually cuts through the soft tissues, tendons, nerves, and even reaches bone. The rapid healing potential of child's tissue covers the dermis and the thread gets completely buried underneath. The only evidence of this foreign body is the circumferential linear scar over the child's wrist occasionally associated with discharging sinus

SIGN AND SYMPTOMS:

The initial symptom in all the patients was pain. After that the parents noticed swelling in the child's wrist with some discharging sinus. All the patients took some local treatment. The symptomatology in our series similarly varied from being asymptomatic to acute presentation with inflammatory signs, for example, abscess, cellulitis, and discharging sinus.



Fig 1: Presenting symptoms of 1st Patient



Fig 2: Presenting symptom 2nd Patient



Fig 3: Intra Op finding of 1st patient.



Fig 4: Intra Op finding of 2nd Patient



Fig 5: Intra op finding of 3rd pt:



Treatment: Surgery was performed as definitive treatment. Complete removal of the foreign body was attempted and successfully done.

DISCUSSION:**Incidence**

The exact incidence of foreign body-related extremity trauma in children at other Indian centers is not available in the literature, but the data are found scattered in multiple case reports.

The upper limbs are more frequently involved than the lower limb.

Presentation

The history in our patients varied widely (month to years) and in some patients forgotten foreign body was revealed only by retrospective direct questioning after removal of the foreign body. There can be long delays between the initial events and final diagnosis as the child often cannot recall/express the events accurately or the events are frequently forgotten. The symptoms due to foreign body may subside and remain silent for days/months. Sometimes, the manifestation is even delayed by several years. Previous reports have also highlighted long periods of forgetfulness and disguise presentations associated with foreign bodies. Some patients gave history of self-trial/attempt at removal at other centers/incomplete removal of foreign body. Others, unsure of their attempt at foreign body removal, presented for confirmation of its removal. Sometimes, it was just a further opinion for a foreign body, parents were already aware of this foreign body.

Type of foreign bodies:

Clearly, foreign body-related pediatric trauma was dictated by regional practices and customs. The "dhaga" syndrome is related to old Indian tradition of tying the sacred colored thread "Moli" before any religious occasion and ritual prayers. The self-removal of thread is considered inauspicious and therefore it remains on the child's wrist for long time and often forgotten. The constriction of unyielding thread gradually cuts through the soft tissues, tendons, nerves, and even reaches bone. The rapid healing potential of child's tissue covers the dermis and the thread gets completely buried underneath. The only evidence of this foreign body is the circumferential linear scar over the child's wrist occasionally associated with discharging sinus. Another similar foreign body is rubber band which is also a child's play object.

Diagnosis

The diagnosis of an extremity foreign body was largely based on reliable history and high index of clinical suspicion. Careful assessment for retained foreign bodies is also necessary. The circumferential wrist/forearm scar was characteristic. As a caution, the hypertrophied scar present in the pierced region may not always contain the foreign body. It may be just the fibrosis or cut end of soft tissues. There is plethora of literature on imaging modalities for detection of foreign bodies etc. For rubber band, ultrasound and MRI are particularly useful. It is advisable to obtain the appropriate imaging before venturing into foreign body exploration as proper localization of extent and size of foreign body greatly helps surgical decision-making including the surgical approach.

Treatment: Removal of rubber band surgically to relieve the inflammatory response is the treatment of choice.

Summary :

A syndrome of negligence usually occurring due to compressive force on soft tissue due to rubber band. Sometimes, the foreign body is detected first time only on advanced imaging. The self-removal of thread is considered inauspicious and therefore it remains on the child's wrist for long time and often forgotten. The constriction of unyielding thread gradually cuts through the soft tissues, tendons, nerves, and even reaches bone. The rapid healing potential of child's tissue covers the dermis and the thread gets completely buried underneath. The only evidence of this foreign body is the circumferential linear scar over the child's wrist occasionally associated with discharging sinus.

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