

## Rubber Band (Dhaga) Syndrome: A Rare Entity to Be Aware Of!!!!

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### Abstract:

**Introduction:** Rubber band or dhaga which are usually tied around wrist though seems harmless can lead to chronic infections if left forgotten in children. These are popularly known as Dhaga syndrome or rubber band syndrome.

**Case Report:** We are reporting a case of 5 year old child who presented with discharging sinus around wrist since 6 months with circumferential scar present around wrist. The infection was because of forgotten rubber band tied around wrist which was forgotten by parents and had become embedded in soft tissue of wrist. surgical removal of the band was successful.

**Conclusion:** Though in this modern era such cases seems a myth but few reporting of such cases shows that every surgeon should suspect this syndrome in child coming with chronic infection around wrist. this case also show the importance of proper history taking and clinical examination before prescribing unusual long course of antibiotics.

**Keywords:** Rubber Band, wrist; children.

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### I. Introduction

Rubber band syndrome also known as dhaga syndrome is a entity which is poorly discussed in literature[1,2,3,4,5]. Not diagnosed on time this condition can lead to chronic infection[1,2,5] and unnecessary prolong course of antibiotics.

### II. Case report

A 5 year old female girl presented to us with discharging sinus on the volar aspect of wrist with circumferential scar. She was initially getting treated by local physician with antibiotics and regular dressings for 5 months. But once antibiotics are stopped discharge reappears. There were repeated episodes of low grade fever. There was no history of any trauma or discharging granules. The wrist was warm, indurated but no fluctuation could be elicited. The finger movements were normal. Both the pulses were palpable and capillary filling was normal. There was no sensory loss which was confirmed by child response to painful and tectile stimulus. No epitrochlear or axillary lymph nodes were palpable. Blood test were normal except slight raise in ESR to 35 and CRP positive. Plain radiographs were normal. On taking history her mother recalled putting a elastic band around her wrist and even remembered to remove a part of it when it was partially visible. A horizontal incision was made over the volar aspect of wrist. On exploration synovitis of flexor tendons was found along with transected tendon of FCU. On further exploration a rubber band was found lying just over ulnar nerve(Fig 1). The nerve was surrounded by fibrous tissue but it was not compressed as such. The fibrous tissue was removed. Nerve was in good condition so there was no need for any neurolysis. On pulling the band there was movement of soft tissue over the entire circumference of the wrist indicating complete encirclement but rubber band was freely movable so there was no need for further exploration of rubber band. The band was cut and slowly pulled out(Fig 2). The incision site was healed in 2 weeks along with a course of antibiotics.

### III. Discussion:

Rubber bands or sacred threads are usually tied around wrists of children on religious occasions and it is considered ominous to remove them. So the thread may remain in situ or prolong time and sometimes parents might forget to remove them. This syndrome is particularly noted in small childrens where growth is rapid. Due to rapid growth there is increase in circumference size of wrist and this thread slowly cuts through the soft tissue around wrist. Soon the skin epithelises over the thread and it can become invisible. This slow penetration of thread sometimes can cut through tendons as was noted in our case. Surprisingly this slowly progressive condition is painless and without any neurovascular deficit. In some cases it may lie over bone producing a constricting sign[3] on plain radiograph.

One should be suspecting it in cases where a child presents with a thin linear scar with non healing sinuses around the wrist. If not recognized this entity is usually treated as a case of chronic osteomyelitis with prolonged course of antibiotics without any benefits to the patient. There should be a high index of suspicion in such cases to make a right diagnosis.

#### **IV. Conclusion**

A child presenting with linear constricting scar around the wrist in the presence of a discharging sinus should always alert the clinician to the possibility of a forgotten band around the wrist, which might have burrowed into the soft tissues over a period of time. A high index of clinical suspicion and the uniformity of symptoms and clinico-radiologic signs enabled us to make a clinical diagnosis of a constriction band (rubber band syndrome), which was proved after a surgical exploration.

#### **V. Clinical message**

Rubber band syndrome or dhaga syndrome though seen infrequently but if not diagnosed timely could lead to chronic infections.[1,2]We are reporting this case to highlight the importance of taking a proper history and creating awareness about this condition which can be easily missed if not known about.

#### **References**

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**Figure 1** below figure showing a rubber band lying over ulnar nerve held by Penrose drain (blue arrow) with fibrous tissue overlying ulnar nerve (black arrow) with transected FCU.





**Fig 2** Rubber band is removed and fibrous tissue is removed around ulnar nerve.