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## THE EMBEDDED FINGER-RING – A CASE REPORT

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<p><b>Article Info</b> Received 11/10/2015 Revised 27/10/2015 Accepted 12/11/2015</p> <p><b>Key words:</b> Embedded ring, Impacted Ring, Finger-ring injury.</p>	<p><b>ABSTRACT</b> Embedded finger-ring injury is not common in our practice. Most reported cases were in patients with psychiatric illness. We report a case of embedded fashion ring in a 62 year old man with no history of psychiatric illness. It was a fashion silver ring worn on the Right Ring finger. The embedded Ring was removed under digital block with 1% Lignocaine, with no loss of finger function. The wound healed uneventfully on outpatient basis. To the best of our knowledge Embedded ring with bony erosion and tunnel formation has not been reported in our environment.</p>
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### INTRODUCTION

Embedded Finger-ring injury is an uncommon encounter in clinical practice worldwide. The few cases reported in the literature were in patients with psychiatric illness or mental impairment [1-4]. It has also been reported in a drug Abuser and following trauma. It has been encountered in adults and in growing children [5].

### CASE REPORT

A. S. a 62 year old right-handed man who presented at the General Out-Patients Department of the hospital on account of inability to remove a finger-ring on the right ring finger. He was subsequently referred to the Orthopedic Service.

There was a 4 month history, prior to presentation, of swelling on the aforementioned finger which later ulcerated and this made it difficult for him to remove the ring. There is associated history of severe pain. and use of over the counter drugs.

Patient left the ring in -situ till soft tissue grew over the ring while seeking help from patent medicine dealers.

Examination revealed an obese healthy looking middle aged man, There was swelling on the right ring finger with ring embedded into the finger with ulcers at the points of entry and exit of the ring on the both sides of the

right ring finger. The other part of the ring which is above is well exposed at the dorsum of the finger. The integrity of the soft tissue on the palm is intact. There was no sensory loss and capillary refill was normal. X-Ray of the right hand shows a metallic ring passing through the proximal phalanx of the right ring finger and associated soft tissue swelling.

He was operated upon after full laboratory work up. The finger-ring was removed under digital block using a small hand-saw while protecting the skin, and a bone nibbler used for the extraction. The tunnel created by the finger-ring was copiously irrigated with normal saline, and edges of the ulcers debrided.

Daily wound dressing and Antibiotics (Ciprofloxacin, Metronidazole) were continued post operatively. The ulcers healed within two weeks.

On follow up at the clinic, he has residual stiffness at the proximal interphalangeal joint for which Physiotherapy was commenced.

### DISCUSSION

Although the incidence of embedded finger - ring is not known probably due to under-reporting or non – presentation in the hospitals in our environment, impacted finger – ring is a commoner occurrence. It is commoner in



female who sometimes, adorn themselves with multiple finger-rings [4,3].

It is often verbally reported of ‘charm’ rings worn for many years and completely buried in the soft tissue especially on the toe. These are said to be worn for ‘longevity’ of life. The belief associated with wearing such rings may be a factor for not removing an impacted finger – ring by the individual, and may eventually be embedded. In our patient the finger – ring was a fashion ring and patient denied any associated spiritual belief.

Various methods have been described for removing impacted ring that has not embedded or eroded the skin like the use of lubricants, string or tight elastic band [6].

However, in advanced stages where the finger ring has fully embedded, surgical removal is required. This can be done under local anaesthesia, ring block or brachial regional block. If part of the ring is exposed the ring is simply cut and extracted in a single piece or in two pieces in case of impacted ring.

Late presentation of embedded ring which is often seen in patients with psychiatric illness may lead to bony fracture, finger deformity, ischaemia or gangrene of the finger. In the event of gangrene, the finger is amputated, and the ring removed.

Our case has no history of mental impairment, but rather due to ignorance and poverty as he did not seek proper medical care.

**Fig 1. The embedded finger - ring in the right Ring finger**



**Fig 2. Xray of the right hand showing ring in the proximal phalanx of the Ring finger**



**Fig 3. The volar aspect of the ring finger showing intact skin**



**Fig 4. Dorsal aspect of the Ring finger with the ulcer after the removal of the ring**



**Fig 5. Post op Xray showing the hole created by the embedded ring in the proximal phalanx**



**Fig 6. The Ring after the removal**



## CONCLUSION

The need to strengthen our health care delivery services cannot be over-emphasized. Patients should have stress-free access to prompt medicare. Impacted finger – ring should be removed early to prevent the ring being embedded with attendant sequelae, including gangrene of the finger.

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## CONFLICT OF INTEREST:

The authors declare that they have no conflict of interest.

## STATEMENT OF HUMAN AND ANIMAL RIGHTS

All procedures performed in human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.

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