

A Crush Injury Of The Hand: The Danger Of A Sugarcane Extraction Machine

¹Kow RY, ²Muhammad Firdaus Nasution, ¹Ruben JK, ¹Zaharul-Azri MZ, ³Low CL

¹Department of Orthopaedic Surgery, Hospital Kuala Lipis, Kuala Lipis 27200, Malaysia.

²Department of Orthopaedic Surgery, Hospital Raub, Raub, 27600, Malaysia

³Department of Radiology, Hospital Kemaman, Kemaman, 24000, Malaysia

INTRODUCTION:

Sugarcane juice is a favourite drink in Malaysia. The risk of occupational hazard is high among sugarcane juice vendors. We present a case of a crush injury of the hand occurred while working with a sugarcane juice extraction machine.

CASE REPORT:

Mr K, a 21-year-old right hand dominant gentleman, had his right hand trapped within the sugarcane juice extraction machine during a sugarcane juice extraction process. As a result, he sustained a crush injury of his right hand. Attempt to salvage his right index finger was in vain due to *Pseudomonas sp.* infection which was confirmed via tissue cultures. He subsequently had a split-skin graft over the wound after the infection settled and the wound healed well.



Figure A shows the condition of his right hand and its plain radiographs upon admission.

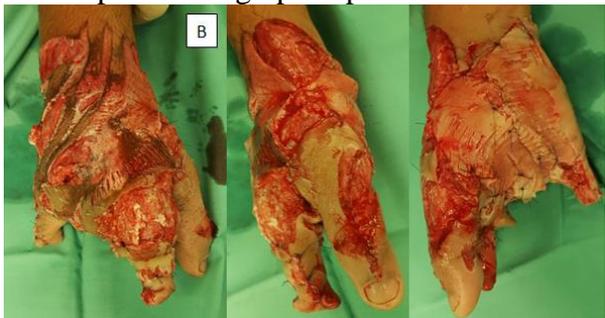


Figure B shows the condition of the hand after wound debridement and refashioning.

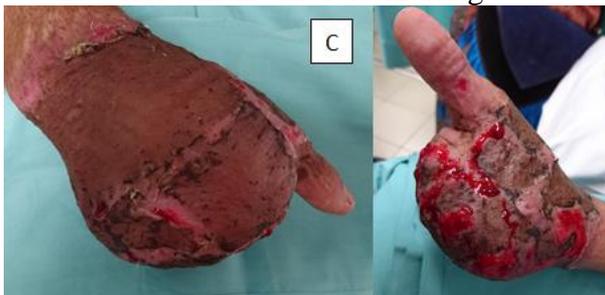


Figure C shows the healing wound 3 weeks after a split-skin graft procedure.

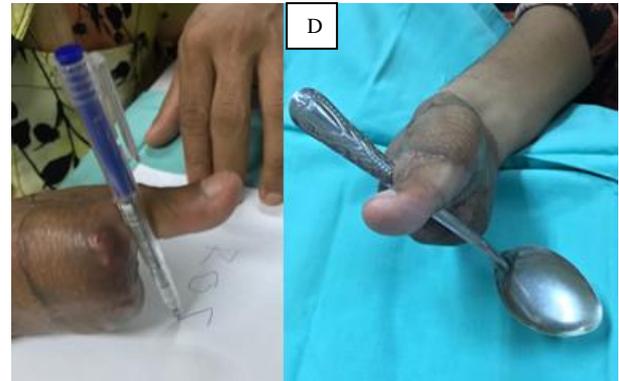


Figure D shows the well-healed wound of the right hand with limited function of the thumb.

DISCUSSION:

Crush injury of the hand as a result of hand trapping within a sugarcane juice extraction machine is common in Malaysia. The neglect attitude and lack of safety precautions are main causes of this occupational injury among the vendors. Sugarcane juice extraction machine-related crush injury of the hand is associated with a poor outcome. Hence, preventive care and awareness among machine operators are important to avoid life-long morbidity among the vendors.

CONCLUSION:

Crush injury of the hand by sugarcane juice extraction machine is associated with high morbidity and poor outcomes. Awareness has to be imparted among machine operators to effectively prevent this kind of accidents.

REFERENCE:

1. SR Ahmad. Sugarcane extraction machine injuries of the hand. BMC Proceedings. 2015;9(Suppl 3):A104.
2. SS David, K Goel. Knowledge, attitude, and practice of sugarcane crushers towards hand injury prevention strategies in India. Injury Prevention 2001;7:329-330.