

Hand Versus Bread Maker

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Introduction

This 60 year old woman was in her bakery when she got her right hand caught in an automatic bread kneading machine. She suffered a severe degloving injury from the shoulder distally with bone and tendon clearly visible through the degloved skin. She is otherwise stable. Examination of her upper extremity reveals that there are no radial or ulnar pulses, although the brachial pulse is diminished to palpation. Her thumb, index, and long fingers on the right side are cold and blue. When asked to actively move her fingers, her tendons are seen to move through the skin. There is no sensation to any of her digits of the right hand. She complains bitterly of pain from "the shoulder down", but has an insensate right hand. She has a large mass over her anterior right thorax and her shoulder is squared-off.

Radiographs in Trauma Room:

What are your diagnoses ?

How would you manage this patient in the trauma room ?

The patient was given Tetanus Toxoid and intravenous Ancef. Fluid resuscitation was instituted and blood was sent for cross-and-type. After IV conscious sedation in the trauma room, a closed reduction of the right shoulder was attempted.

Post Reduction Views in Trauma Room:

Is the shoulder reduced ?

What may be the cause ?

What is your management plan ?

The patient was taken to the operating room for management of her injuries. After a quick debridement of her wounds, an attempt was made at revascularization of the digits and forearm. Although this was successful, there was a great degree of bone loss and the brachial artery thrombosed intraoperatively. There was a large amount of soft tissue loss. At this point it was felt that limb salvage was impossible, so we reverted to an upper extremity amputation with disarticulation of the right shoulder.