Repair of a Fifth Finger Crush Injury

By William R. Higgs, MD, FACS

PATIENT PRESENTATION:
A patient presented to the Emergency Room at Springhill Medical Center (Mobile, Alabama) on February 16, 2009, secondary to a crush injury to the fifth finger of the left hand. The finger was crushed by a piece of machinery and a metal plate. Initial presentation revealed a “de-gloving” type injury with significant soft tissue injury of the ventral aspect of the finger from distal to proximal (Fig. 1). The patient also had a small chip fracture of the distal phalange, but retained a limited range of motion (Fig. 2).

TREATMENT REGIMEN:
An initial consult was placed to Orthopedics who recommended amputation at the proximal joint. The patient requested an opinion from Dr. Harry Studdard, Medical Director of the Center for Wound Care. The patient was admitted for medical management and a consult was placed to plastic surgery. On February 17, 2009, the plastic surgeon felt the best option would be amputation. The patient refused the procedure and requested management by the wound care team. Dr. William Higgs, cardiothoracic surgeon and attending physician in the wound care center, took the patient to the operating room where the wound was debrided and irrigated. A piece of PriMatrix was then hydrated, meshed, and placed on the wound bed (Figs. 3 and 4). The patient was also receiving hyperbaric oxygen therapy on a crush injury profile twice daily.

CLINICAL OUTCOME:
The patient was discharged on February 21, 2009, for outpatient wound management, including continuation of hyperbaric oxygen. Outpatient occupational therapy was initiated for range of motion and function. The patient was discharged from the wound care center with the finger intact and full range of motion on March 27, 2009 (Fig. 5). A follow-up examination on June 19, 2009, revealed that the wound had healed completely (Fig. 6).

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