Acute finger joints replacement with silastic spacers in compound injuries of the hand

Background
Silastic spacer replacement for the treatment of destroyed finger joints due to degenerative, post-traumatic or rheumatoid arthritis has been well established for years. The use of silastic spacers in acute severely traumatized hand is commonly performed by few hand surgeons, but it is a practice still debated and controversial. Furthermore, the literature about it is extremely scarce.

Patients and methods
We present eight joints acutely replaced with silastic spacers in seven trauma patients. One woman and six men with an average age of 42 years (range 25-80) were included. One patient had suffered a crush injury, 4 had suffered sawing or milling injuries and two patients had suffered traumatic amputations of at least one digit through different trauma mechanisms. We replaced two MCP joints six PIP joints and no DIP joints. The fingers operated on were one thumb, four index, one ring and one little fingers. We reviewed all our patients with a follow up of at least one year, with the oldest patient seen after 20 years.

Results
In all patients, healing was uneventful, with no infections and an acceptable range of motion. No patient complained about instability, even in the thumb joints. One silastic spacer fractured. This was an incidental finding, the patient had no complaint and did not want a secondary procedure.

Conclusion
In our opinion, with the right patient selection, joint replacement with silastic spacers is a valuable alternative to arthrodesis in acutely destroyed finger joints. The silastic replacement can be definitive or just temporary before a more refined joint reconstruction is performed, maintaining the mobility of the segment.

Illustrative Case

a) This 28 year old patient suffered the depicted two level subamputation injury to the non dominant left hand working on a milling machine. Besides the damage to nerves, vessels and tendons the MCP II joint was completely destroyed with large joint surface fragments missing.

b) Salvaging the joint was not an option, which is why a Swanson spacer was implanted during the initial surgery.

c) 6 months postop we see acceptable aesthetic results with a shorter index finger and good functional results. The patient is back to work 100% as a carpenter.