



A Veteran's Limb Salvage Outcome Following a Chopart's Amputation

SINAI HOSPITAL Kiana Trent DPM, DABPM, FACPM, FASPS^a, Asma Jappar DPM^b, Hiba Mohiuddin DPM^c, Hummira Abawi DPM, DABPM, FABFAS^d

a.. Clinical instructor of Orthopedics, University of Maryland School of medicine. b. PGY-3, Maryland Health care system, Rubin Institute of Advanced Orthopedics, University of Maryland School of Medicine. c.PGY-3, Maryland Health Care System, Rubin Institute of Advanced Orthopedics, University of Maryland School Medicine. d.Program Director, Maryland Veterans Affairs Health Care System Podiatric Residency



Statement of Purpose

We present a successful outcome of a amputation Chopart's modified multidisciplinary approach to preserve greater limb length. Optimization of the residual limb length is important as the level of amputation has functional and quality-of-life implications for the patient.

Literature Review

Limb salvage techniques such as the Chopart maintain limb amputation increasing residual limb lever arm length¹. However, ulcerations are commonly reported secondary to equinovarus deformity and later necessitate a higher level amputation and loss of function. Brodell et al reported that 94% of postoperative patients developed Wound complication and only 44% of patients ever successfully ambulated with a prosthesis after Chopart amputation, and the others (56%) required revision amputations such as a BKA.

Case Study

We present a case report of a 74-year-old Vietnam War Veteran who presented with a chronic diabetic ulcer following a midfoot amputation. Midfoot amputation was converted to a Chopart's amputation with tendo-achilles tibiotalocalcaneal arthrodesis lengthening. This was complicated by surgical site dehiscence during his hospital admission. After multiple debridements, surgical dehiscence was successfully treated in the setting of internal fixation by utilizing secondary wound closure techniques consisting of dermal matrix grafts and negative pressure wound antibiotics, intravenous therapy, term offloading. When the patient has reached complete healing at the surgical site, a custom forefoot filler with and ankle foot orthoses was prescribed to prevent further (k) breakdown. At one year follow up, patient is fully weight bearing with length preservation and free of ulcerations and has resumed all his activities without any limitations.

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Figure 1. a) & b): initial AP and lateral foot radiographs. c) & d): AP and lateral radiographs s/p TTC fusion and TAL. e) initial clinical presentation ' with failed midfoot amputation f) & g): clinical images after TTC fusion with TAL. h) surgical dehiscence. i), j), k), wound care. m), n) & 0):complete closure achieved. p) & q): 1 year follow up with forefoot filler and AFO

Analysis and Discussion

Studies show reduced complication rates with modifications to Chopart's amputation such as tendon balancing and hindfoot fusion. However, stump breakdown after modified techniques can still occur and pose a risk for limb loss. Our multidisciplinary approach involves obtaining alignment through surgical reconstruction, protection of soft tissue envelope from sheer forces with long term custom AFO and forefoot fillers. These limb salvage techniques decrease energy expenditure, provide improved function and improves quality of life of patient.

References

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