

Damage control external fixation as a definitive treatment in a low resource environment in the Dominican Republic

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INTRODUCTION:

Motor vehicle accidents account for most of the high-energy trauma in the Dominican Republic, our country ranks 4th globally in road-traffic accident rates. Current Surgical fracture treatment of high-energy trauma involves the use of damage control procedures and then converted to internal fracture fixation for final bone healing, however in our low resource environment this protocol cannot be achieved for distinct reasons, most of them involve lack of adequate funding for implants and medical care. We present the evolution of a series of patients treated with damage control (external fixation) as an only fracture management construct.

METHODS:

15 patients with high-energy trauma were treated with ilizarov external fixation for damage control; this became the definitive fixation construct. The patients were treated for open fractures and severe soft tissue lesions while maintaining external fixation and subsequently the only fixation utilized until fracture healing. We found that all of the patients achieved bone consolidation with resolution of soft tissue lesions.

RESULTS:

All the patients consolidated between The patients maintained the ilizarov external fixation for 10 to 24 months, 6 showed delayed bone healing a 2 developed skin necrosis, other infections required additional surgeries but the initial external fixation was maintained.

DISCUSSION AND CONCLUSION:

In our low resource environment its reasonable to use damage control external fixation as a definitive treatment for high energy fractures obtaining acceptable healing of fractures and soft tissue lesions.

