Traumatic Hemipelvectomy: Salvage Or Sacrifice?

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INTRODUCTION:

Traumatic hemipelvectomy is a rare devastating injury with severe blood loss, soft tissue contusion and high mortality rate. We report a case of a survivor, where we failed to save the limb but life.

CASE REPORT:

A 16-year-old male motorbike rider was thrown from the bike in an accident. He arrived at nearest hospital within 30 minutes and received initial fluid and blood resuscitation, electively intubated and was started on inotropes. There was 30x 15 cm laceration wound over the lower abdomen extending from left iliac crest to contralateral pubic region (figure 1). Urgent radiographs showed disruption of left sacroiliac joint and symphysis pubic (vertical shear) and ipsilateral acetabulum and femur fracture (figure 2). He underwent emergency debridement, C-clamp application, pelvic packing and external fixator for femur fracture. Intraoperatively, external iliac artery was intact but femoral artery was intermittently spasm. Surrounding muscles were severely torn and contused. To clarify the doubt, CT angiogram was performed and it showed total occlusion of popliteal artery. Considering patent femoral artery, above knee amputation was done on day 3. Unfortunately, the inguinal wound severely infected and required multiple debridement. However, the infection was unsuccessfully eradicated thus hemipelvectomy was carried out. During the procedure, noted the obturator vessels, femoral and sciatic nerves were avulsed with necrosis of iliopsoas and abdominal wall muscles. Wound successfully closed with gluteus maximus flap. Two months post trauma, patient recover well and ambulating with crutches (figure 3)

Figure 1

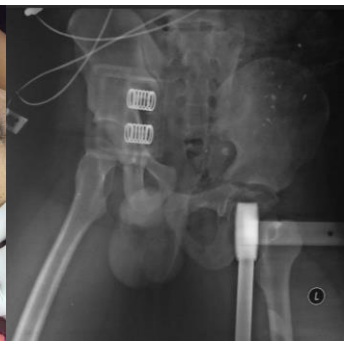

Figure 2

Figure 3

DISCUSSION:

Vigorous resuscitation, early haemostasis and pelvic stability achieved are lifesaving steps. Initial debridement is not always adequate in view of hemodynamic instability of the patient and repeated debridement is ‘compulsory’. In the presence of massive tissue necrosis, even with patent vascularity, limb salvage procedure usually fail. Completion of hemipelvectomy can be done if the condition is permissible.

CONCLUSION:

Managing traumatic hemipelvectomy remain challenging. Decision to salvage or amputate depends on hemodynamic instability, soft tissue and must adhere to principle of DCO.

REFERENCES:

1. Management of traumatic hemipelvectomy: an institutional experience on four consecutive cases *Wu et al. Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine 2013*