

Open Malgaigne Fracture In A Young Female: A Case Report And Review Of Literature

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INTRODUCTION:

Malgaigne fracture was first described by the famous French surgeon, Joseph-Francois Malgaigne (1806-1865). This was the first historical account of vertical shear fracture where he termed it as a “double fracture” of the anterior and posterior pelvic ring, displacement of the hemipelvis and shortening of the affected limb¹. In modern classification systems, this fracture relates to a higher grade fracture type associated with high mortality and morbidity. There is a paucity of reports of this fracture type. We report a case of a 17 year old female involved in an alleged motor vehicle accident presenting with this rare fracture.

CASE REPORT:

A 17 year old female was involved in an alleged motor vehicle accident while riding a motorbike – alleged to have hit a lamp post head on. She presented initially with a full GCS but in class III hypovolaemic shock. Clinical examination revealed a massive laceration wound extending from the left groin to the anus with exposed pelvic bone. Her left lower limb is pulseless and insensate to touch from the groin below. The laceration wound showed a deep extension with involvement of the urethra, lateral vagina and obliteration of the anus with exposed pelvic floor muscles. She otherwise has no other long bone fractures or major solid organ injuries.

MANAGEMENT:

Plain radiographs showed a severe vertical shearing in the caudal direction of the left hemipelvis with complete disruption of the left SI joint and pubic rami fractures. CT pelvis demonstrated grossly distended bladder with displacement of cervix and vagina left laterally. CT angiography revealed disruption of left common iliac artery shortly after the level of bifurcation.

After initial resuscitation with large amounts of blood transfusion (exceeding 6 pints) and fluid replacement, patient was stabilized hemodynamically. With a multidisciplinary

approach involving surgical and gynaecology team, she underwent an emergent external fixation of the pelvis to arrest intra-pelvic bleeding, wound debridement of the perineum, a defunctioning colostomy and later on a left hip disarticulation. After subsequent debridements, a left hemipelvectomy was done in view of persistent infection.



PELVIS 3D RECON

POST EX FIXATION

OUTCOME:

The decision for left hemipelvectomy was made despite the morbidity the patient will face as a young and active female. The worsening infection posed a serious risk of fulminant sepsis on her life. The decision made was appropriate in the end as patient made a good recovery in terms of wound healing and complete resolution from the ongoing sepsis. She is currently planned for a reversal of the stoma and undergoing rehabilitation at a local rehabilitative center.

CONCLUSION:

Open Malgaigne fractures are rare and when they do occur, they pose a high risk of morbidity as demonstrated in this patient. Neurovascular injuries, genitourinary involvement and massive blood loss are few of the serious associated injuries with such fracture^{2,3}.

REFERENCES:

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