



**"The Lodox full-body scan is an ideal imaging tool for evaluating patients with multiple injuries"**

Asmhan Al Sajwani, Radiology Clinical Educator & Jukha Al Badawi, Principle Radiographer & Clinical Supervisor, RH Emergency & Trauma Centre, Dubai

### A case study from the Emergency and Trauma Centre, Rashid Hospital, Dubai.

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#### INTRODUCTION

In the last 10 years the UAE has witnessed a rapid growth in the construction industry, which is pivotal in setting a pioneering record in economy and tourism growth. The active increase in the number of construction projects in the UAE has caused an alarming number of accidents at construction sites<sup>1</sup>. Falling from height is considered at the top of the hazards list of construction sites fatalities<sup>2</sup>. There have been many recorded incidences of falls from height in the last few years, yet unfortunately there is no official registry for the total number of fatalities occurred. According to USA Occupational Safety and Health Administration statistics (OSHA), in 2010, there were 264 fall fatalities out of 774 total fatalities in construction sites<sup>2</sup>. These types of injuries carry a high mortality rate as patients present with multiple fractures and internal injuries.

#### CASE PRESENTATION

A 30 year old construction site employee was transferred to the Emergency and Trauma Center by ambulance after falling from approximately 9 meters. The patient was hemodynamically stable with a blood pressure of 132/73 and pulse of 133 bpm. His Glasgow Coma Score was 15/15. The patient was suffering from bleeding in his left leg due to open fracture, and complained from pelvic pain. Physical examination revealed deformity and tenderness of the left leg and right forearm. There was also a degloving injury in the right foot and laceration wounds in the left thigh, right knee and scrotal area.

#### IMAGING, DIAGNOSIS AND TREATMENT

A trauma CT scan and Lodox full-body X-ray scan was performed. The Lodox images indicated fractures of the left tibia and fibula (middle and lower third), fractures of the proximal aspect of the right radius and ulna, fractures of the right acetabulum and the left inferior pubic ramus. Also, pubic symphysis diastasis was clearly indicated in the Lodox image. The patient was intubated due to the multiple injuries and transferred to the operation theatre for emergency fixation and wound debridement of right knee and left thigh. ORIF symphysis pubis, external fixator bridging of the left knee was also done on the same day along with vacuum sealing of the right foot. Further surgeries were performed including ORIF plating and K-wire of right radial styloid process once the patient was stable.

#### DISCUSSION

The benefit of acquiring a fast full-body diagnostic image to provide full diagnosis of all major injuries in a short timeframe is evident in this case. Patients with history of fall from height present with complex injuries, often dispersed. Without the capability of producing a one shot full body image, multiple X-ray views are needed to fully assess the patient condition. The use of Lodox reduced the overall radiological examination time significantly, allowing for rapid assessment and movement of the patient to the operating theatre.

#### CONCLUSION

In a fast timeframe, Lodox provides full body diagnostic assessment of all injuries that otherwise may not be identified during clinical assessment or in a trauma X-ray protocol.

#### References

1. The Free Library, Al Bawaba Publication, UAE: 50% of all construction site accidents result from falls from height, [2008]. Retrieved December 19-2012, <http://www.thefreelibrary.com/UAE%3a+50%25+of+all+construction+site+accidents+result+from+falls+from...a0189638355>
2. United States Department of Labor, Occupational Safety & Health Administration (OSHA), [2010]. Retrieved January 15-2012, <http://www.osha.gov/stopfalls/index.html>