

# A Unique Mechanism Of Chance Fracture In An Adolescence Following Banana Boat Ride: A Case Report

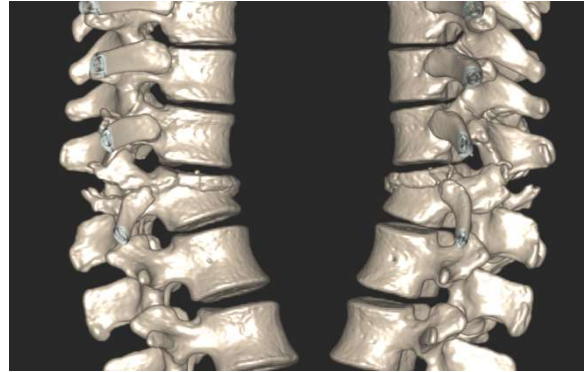
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## INTRODUCTION:

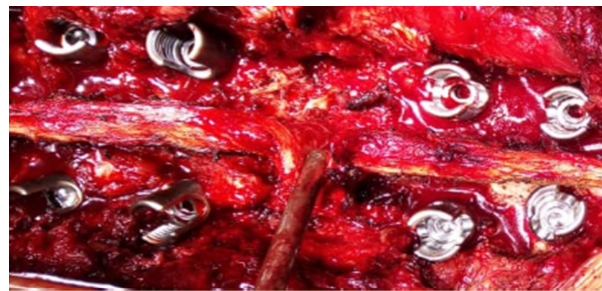
Chance fractures are seen usually as the result of flexion-extension injury, most commonly during motor vehicle accident with the advent of lap seatbelts and injury from fall with forward flexion position<sup>1</sup>. To our knowledge, this is the first reported case of a Chance fracture sustained after falling during Banana Boat ride activity.

## REPORT:

An 18-year-old female student went for recreational activities at a beach and had a fall during riding the Banana Boat. Complain of sudden intense pain in the back and unable to stand and move the back due to pain. No numbness or weakness of the lower limbs. Physical examination revealed a thoracolumbar junction midline tenderness and bruises over the back but with no gap or step deformity of spine and no neurological impairment. Thoracolumbar x-ray revealed chance fracture T12 and Computed tomography (CT) scan revealed features of chance fracture of thoracic T12 described as anterior wedge thoracic T12 body horizontal fracture extending through posteriorly, extension of the fracture to the right pedicle and the right superior articular process of the T12 facet joint, subluxation of the left T12 superior articular facet joint and spacious spinal canal (**Figure 1**). The fracture was classified as AO B2 type, mechanically unstable due to osseoligamentous distruption<sup>2</sup>. Subsequently the patient underwent posterior Instrumentation and spinal fusion T10 to L2 (**Figure 2**) with intraoperative findings revealed torn of supraspinous and interspinous ligament.



**Figure 1;** 3D CT scan revealed chance fracture T12



**Figure 2;** Torn of supraspinous and interspinous ligament

## CONCLUSION:

The mechanism of this chance fracture would suggest that this might be a high risk injury in this recreational activity, yet there have been no reported cases in the literature. In conclusion, vertebral chance fracture is a potential hazard in banana boat ride by a high speed flexion-extension with rotational mechanism and people should be made aware of such a risk of injury.

## REFERENCES:

1. Alejandro et. al. Clinical Neuroscience 2015; 22: 1853–1856
2. O.Karargyris et. al. Open Orthopaedics Journal,2013;7,301-303.