

Supplementary data

Table S1 Quantitative and qualitative CT parameters

Parameter (Abbreviation)	Type	Measurement plane	Brief description
Cobb angle (CA)	Quantitative	Sagittal	The angle between the superior endplate of the vertebra cranial to the injured one and the inferior endplate of the vertebra caudal to the injured one.
Gardner angle (GA)	Quantitative	Sagittal	The angle between the superior endplate of the vertebra above the injured level and the inferior endplate of the injured vertebra itself.
Regional angle (RA)	Quantitative	Sagittal	The angle between the inferior endplate of the injured vertebra and the inferior endplate of the superior adjacent vertebra.
Local kyphotic angle (LKA)	Quantitative	Sagittal	The angle between the superior and inferior endplates of the injured vertebra, reflecting local wedge deformity of the vertebral body.
Acute interspinous expansion angle (AIEA)	Quantitative	Sagittal	The angle between the anterior border of the injured vertebral body and its inferior endplate.
Interspinous distance (ISD)	Quantitative	Sagittal	The distance between the inferior border of the spinous process of the vertebra above the injury level and the superior border of the spinous process of the injured vertebra.
Interspinous distance ratio (ISD ratio)	Quantitative	Sagittal	The ratio of the measured interspinous distance to the mean of the interspinous distances in the adjacent intact segments (above and below the injury level).
Interspinous angle (ISA)	Quantitative	Sagittal	The angle between the superior contour of the spinous process of the injured vertebra and the inferior contour of the spinous process of the superior vertebra.
Anterior-to-posterior height ratio (A/P ratio)	Quantitative	Sagittal	The ratio of the anterior wall height of the injured vertebral body to its posterior wall height.
Anterior vertebral height ratio (AVH ratio)	Quantitative	Sagittal	The ratio of the anterior wall height of the injured vertebral body to the mean anterior height of the two adjacent uninjured vertebrae.

Anterior edge displacement (AED)	Quantitative	Sagittal	Horizontal displacement of the fragments of the anterior part of the injured vertebral body, measured as the distance from the most anteriorly protruding or posteriorly prolapsing point of the anterior surface of the injured body to a line connecting the anterosuperior corner of the inferior adjacent vertebra with the anteroinferior corner of the superior adjacent vertebra.
Free bone fragment (FBF)	Qualitative	Sagittal / Axial	Presence of detached (isolated) bone fragments from the anterior part of the injured vertebral body.
Vertical lamina fracture (VLF)	Qualitative	Axial / Sagittal	Presence of a vertical fracture line in the vertebral lamina.
Horizontal lamina fracture (HLF)	Qualitative	Axial / Sagittal	Presence of a horizontal fracture line in the vertebral lamina.
Facet misalignment (FM)	Qualitative	Sagittal	Discrepancy between the articular surfaces of the facet joints at the level of injury, determined on sagittal CT reconstructions (threshold shift > 3 mm).
Facet joint widening (FJW)	Qualitative	Axial / Coronal	An increase in the width of the facet joint space at the injury level compared to adjacent levels (threshold > 3 mm).
Spinous process fracture (SPF)	Qualitative	Sagittal / Axial	Presence of a fracture of the spinous process at the level of the injury.

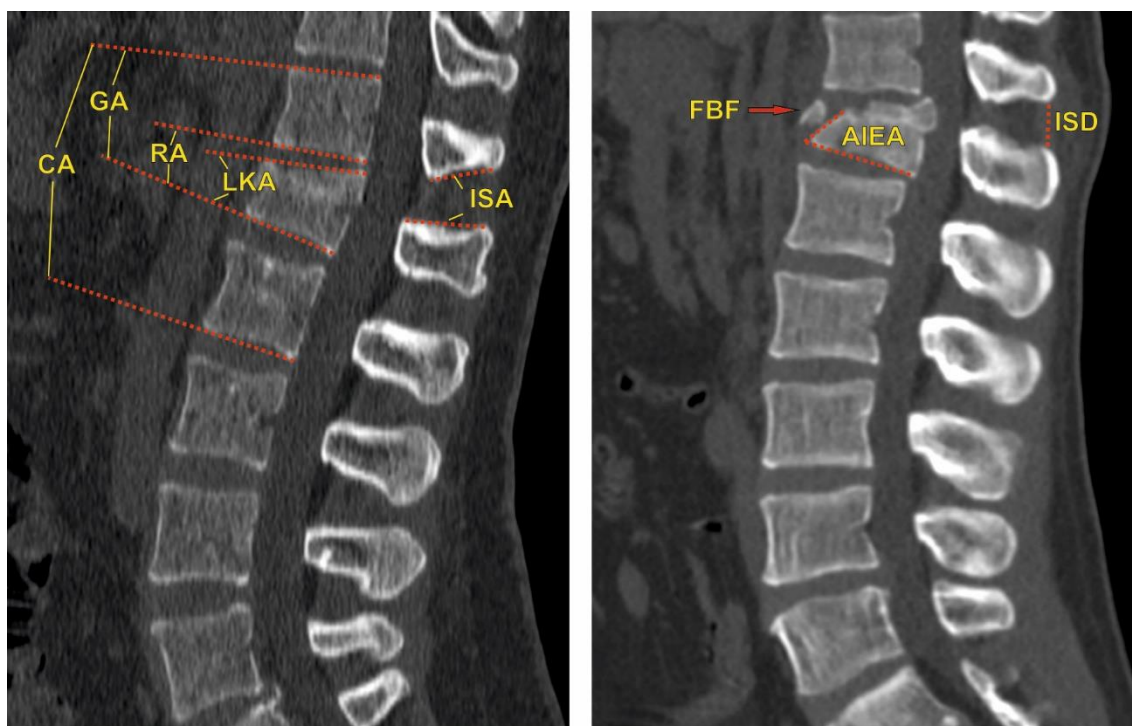


Figure S1 Mid-sagittal CT reconstruction illustrating the measurement methodology of selected morphometric parameters.