Supplementary Information

Title: Stability of multiple-rod constructs and dual-rod constructs in cadaveric thoracic spines

Journal: European Spine Journal

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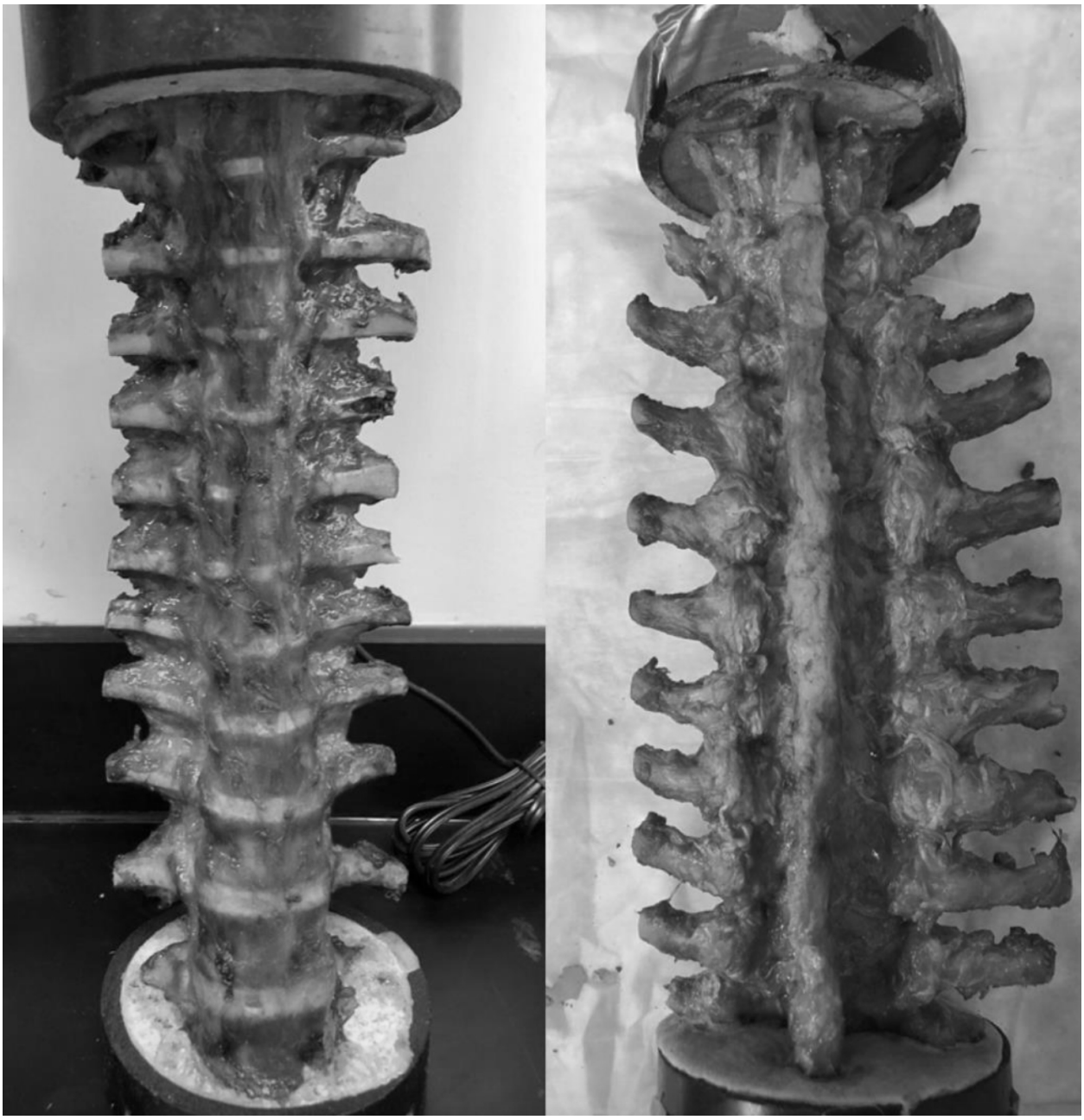
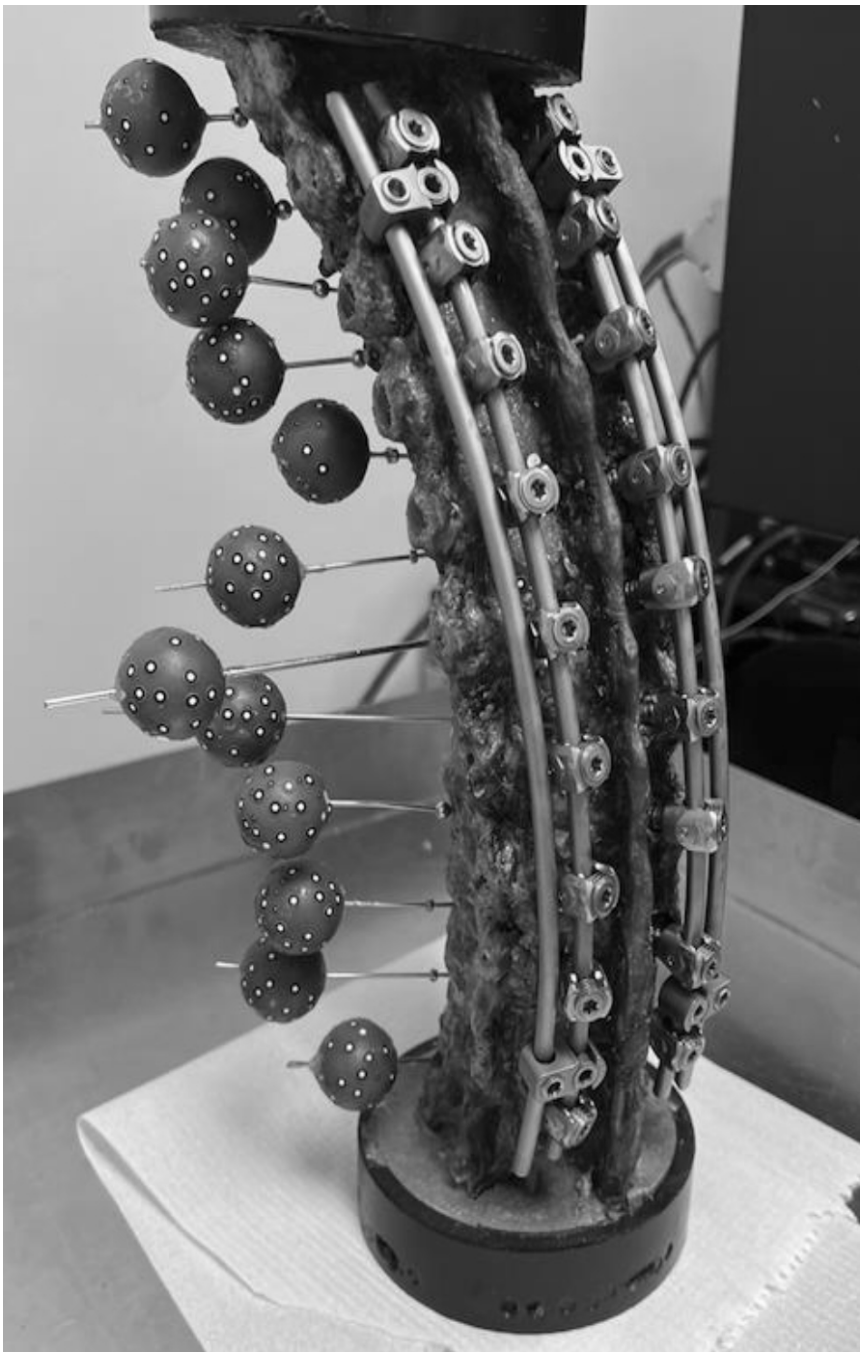


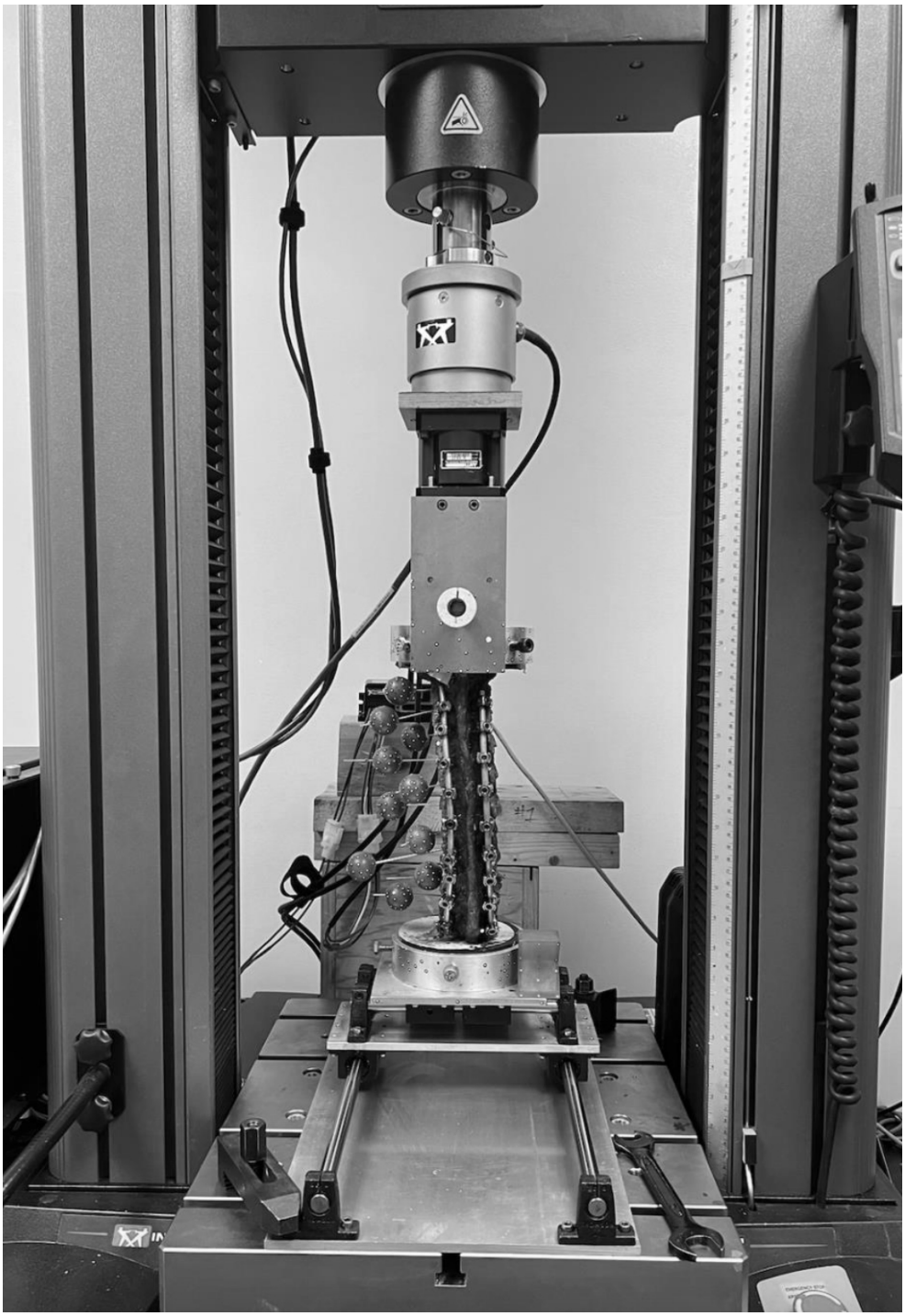
Online Resource 1 Cadaveric thoracic spines (T1-T12) were sectioned and cleared of any musculature. They were then potted into cement at the cranial (T1) and caudal (T12) ends. The T1-T2 and T11-T12 articulation are free to allow motion

Online Resource 2 Demographics of cadaveric specimens

Specimen	Age	Sex	Cause of Death
1	62	Male	Respiratory Failure
2	68	Male	Respiratory Failure
3	65	Male	Cholangiocarcinoma
4	72	Female	Paget's Disease
5	71	Male	Cardiac Arrest
6	33	Male	Head Injury
7	78	Male	Lymphoma
8	63	Female	Respiratory Failure
9	69	Male	Cardiomyopathy



Online Resource 3 Attachment of markers for digital image correlation system. Twelve 2.0mm K-wires with attached 3D-printed hemispherical plastic components were covered with pre-calibrated black and white stickers to allow tracking from the digital imaging correlation system. One of these markers was inserted into each vertebral body spanning from T1-T12



Online Resource 4 Biomechanical testing set-up used to assess cadaveric specimens. The potted and instrumented spines were mounted onto a custom table-top testing machine and secured at the top and bottom. Various loads were applied in each plane of motion and the optical tracking system monitored motion at the different segments