

Additional file 2

Relative displacement in standing

TTS	1	2	3	4
Xa	-0.0232	-0.0293	-0.0275	-0.0103
Xb	-0.0237	-0.0297	-0.0286	-0.0099
RDx(leftward)	0.0005	0.0004	0.0011	-0.0004
Ya	1.3590	0.9211	0.7004	0.0398
Yb	1.3727	0.9207	0.6943	0.0299
RDy(backward)	-0.0137	0.0004	0.0061	0.0099
Za	-0.7644	-1.1053	-1.2412	-1.2219
Zb	-0.7607	-1.1050	-1.2413	-1.2215
RDz(upward)	-0.0037	-0.0003	0.0001	-0.0004
RD	0.0142	0.0006	0.0062	0.0099
TO	1	2	3	4
Xa	0.1681	0.2827	0.3613	0.4790
Xb	0.1577	0.0481	-0.0251	-0.3004
RDx(leftward)	0.0104	0.2346	0.3864	0.7794
Ya	1.5114	1.2742	1.1740	0.8567
Yb	1.5573	1.0881	0.8602	0.1595
RDy(backward)	-0.0459	0.1861	0.3138	0.6972
Za	-1.0862	-1.2672	-1.3269	-1.3071
Zb	-1.0206	-1.4222	-1.5677	-1.5809
RDz(upward)	-0.0656	0.1550	0.2408	0.2738
RD	0.0807	0.3372	0.5530	1.0810
ITO	1	2	3	4
Xa	0.0793	0.0998	0.1293	0.1774
Xb	0.0717	0.0574	0.0232	-0.1723
RDx(leftward)	0.0076	0.0424	0.1061	0.3497
Ya	1.3887	1.0861	0.9481	0.5293
Yb	1.4384	1.0090	0.7835	0.0913
RDy(backward)	-0.0497	0.0771	0.1646	0.4380
Za	-0.9943	-1.2428	-1.3279	-1.3139
Zb	-0.9489	-1.3024	-1.4539	-1.4684
RDz(upward)	-0.0454	0.0596	0.1260	0.1545
RD	0.0677	0.1063	0.2329	0.5814

Point a is located inside the fracture line, and point b is located outside the fracture line. Xa and Xb respectively represent the displacement of the two points

relative to the origin on the X axis. Y_a and Y_b respectively represent the displacement of the two points on the Y axis relative to the origin. Z_a and Z_b respectively represent the displacement of the two points on the Z axis relative to the origin.

TTS: Two transsacral screws;

TO: Triangular osteosynthesis;

ITO: Iliosacral triangular osteosynthesis

RD_x: The relative displacement of the two points a, b on the X axis. Leftward is a positive value

RD_y: The relative displacement of the two points a, b on the Y axis. Backward is a positive value

RD_z: The relative displacement of the two points a, b on the Z axis .Upward is a positive value

RD: The total relative displacement of two points a, b in the three-dimensional direction