

Mechanical Integrity of All-on-Four Dental Implant Systems: Finite Element Simulation of Material Properties of Zirconia, Titanium, and PEEK



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S1. PEEK



Deform_100N_35degreet_PEEK.mp4

Video. (S1). Total deformation of PEEK at a perpendicular force of 100 N.



Deform_100N_Straight_PEEK.mp4

Video. (S2). Total deformation of PEEK at an angular force of 100 N.



Strain_35_PEEK.mp4

Video. (S3). Equivalent elastic strain of PEEK at a perpendicular force of 100 N.



Strain_100N_Straight_PEEK.mp4

Video. (S4). Equivalent elastic strain of PEEK at a angular force of 100 N.



Stress_100N_Straight_PEEK.mp4

Video. (S5). Equivalent elastic stress of PEEK at a perpendicular force of 100 N.



Stress_35_PEEK.mp4

Video. (S6). Equivalent elastic stress of PEEK at a angular force of 100 N.

S2. Zirconia



Deform_100N_Straight_Zirc.mp4

Video. (S7). Total deformation of zirconia at a perpendicular force of 100 N.



Deform_100N_35degreet_Zirconia.mp4

Video. (S8). Total deformation of zirconia at an angular force of 100 N.



Strain_100N_Straight_Zirc.mp4

Video. (S9). Equivalent elastic strain of zirconia at a perpendicular force of 100 N.



Strain_35_Zirconia.mp4

Video. (S10). Equivalent elastic strain of zirconia at an angular force of 100 N.



Stress_35_Zirconia.mp4

Video. (S11). Equivalent elastic stress of zirconia at a perpendicular force of 100 N.



Stress_100N_Straight_Zirc.mp4

Video. (S12). Equivalent elastic stress of titanium at an angular force of 100 N.

S3. Titanium



Deform_100N_Straight.mp4

Video. (S13). Total deformation of titanium at a perpendicular force of 100 N.



Deform_35_tit.mp4

Video. (S14). Total deformation of titanium at an angular force of 100 N.



Strain_100N_Straight.mp4

Video. (S15). Equivalent elastic strain of titanium at a perpendicular force of 100 N.



Strain_35_tit.mp4

Video. (S16). Equivalent elastic strain of titanium at an angular force of 100 N.



Stress_100N_Straight.mp4

Video. (S17). Equivalent elastic stress of titanium at a perpendicular force of 100 N.



Stress_35_tit.mp4

Video. (S18). Equivalent elastic stress of titanium at an angular force of 100 N.

S3. Dental Implant

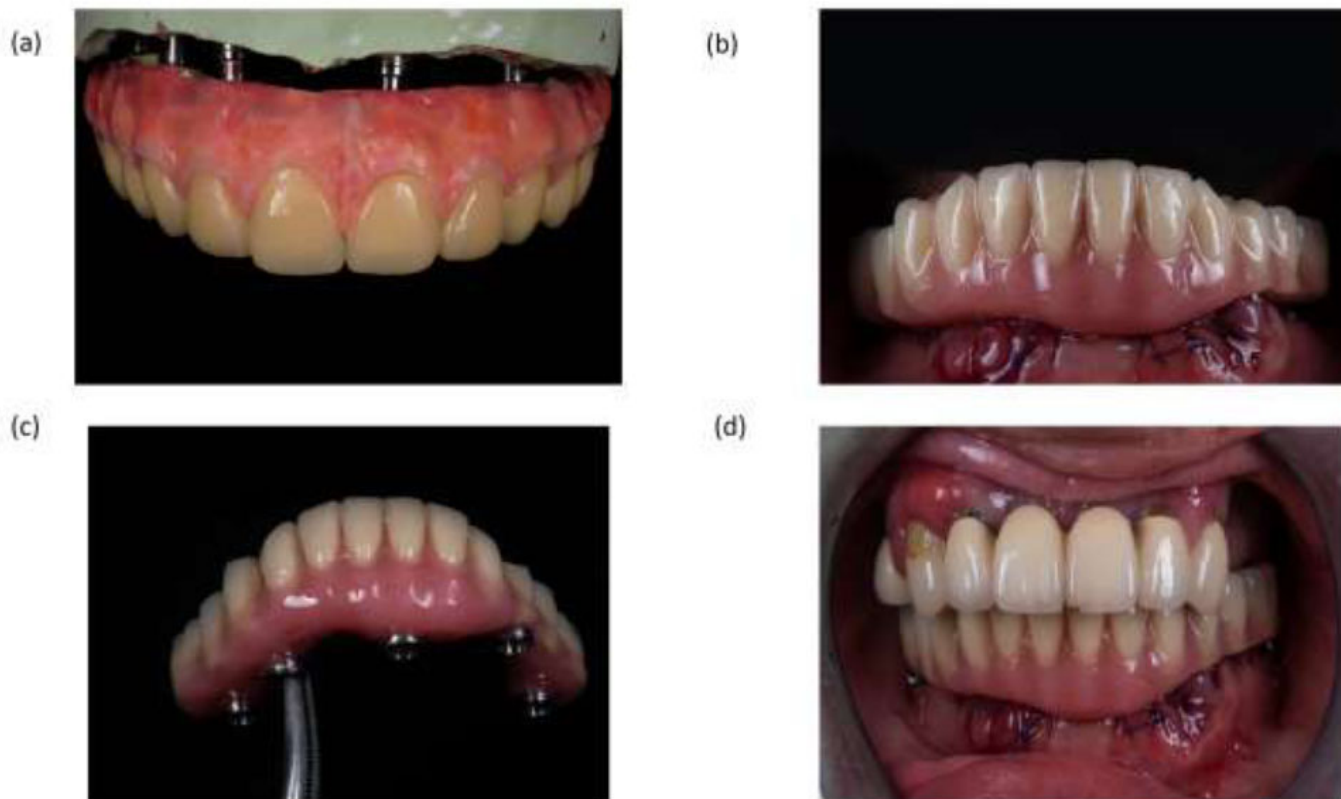


Fig. (S1). Different views of the dental implant.

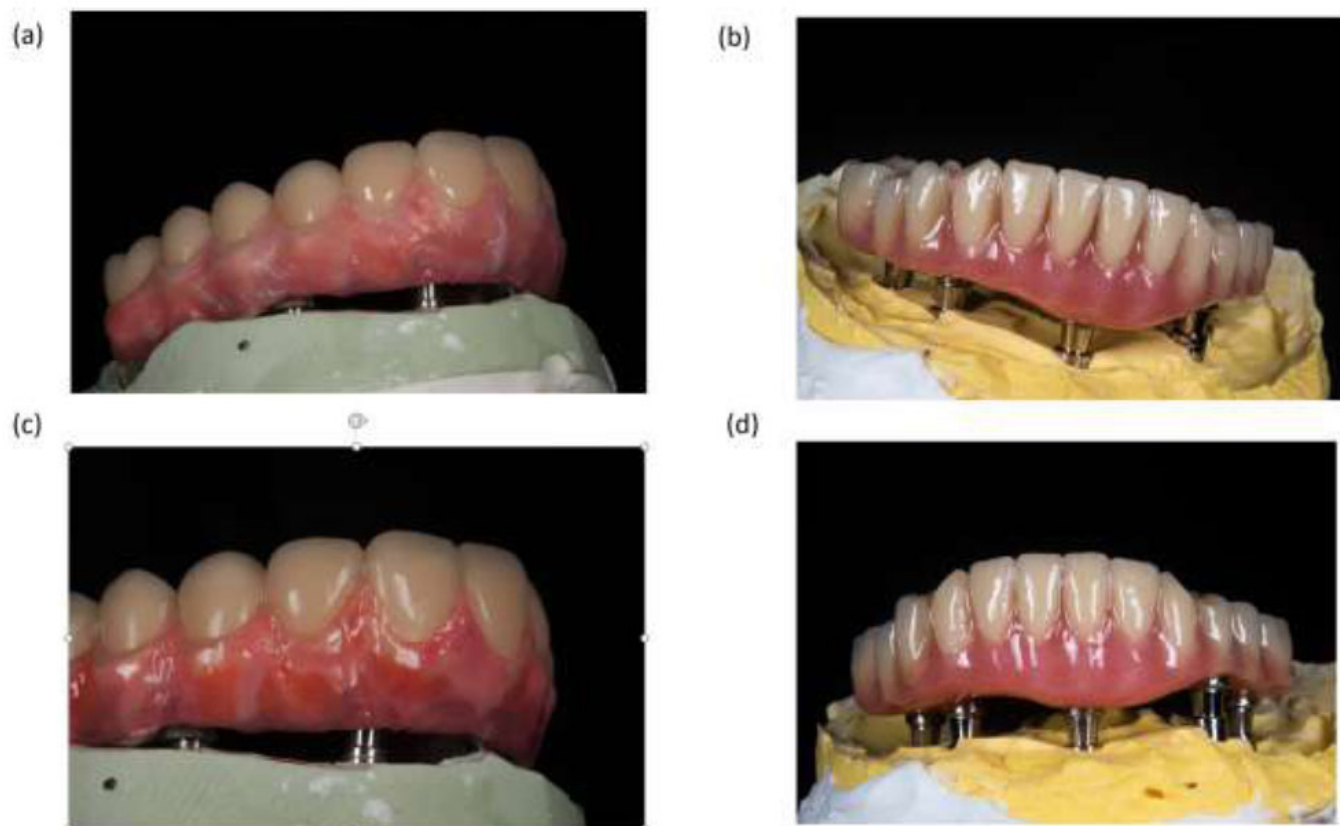


Fig. (S2). Different views of the dental implant.