

Supplementary material

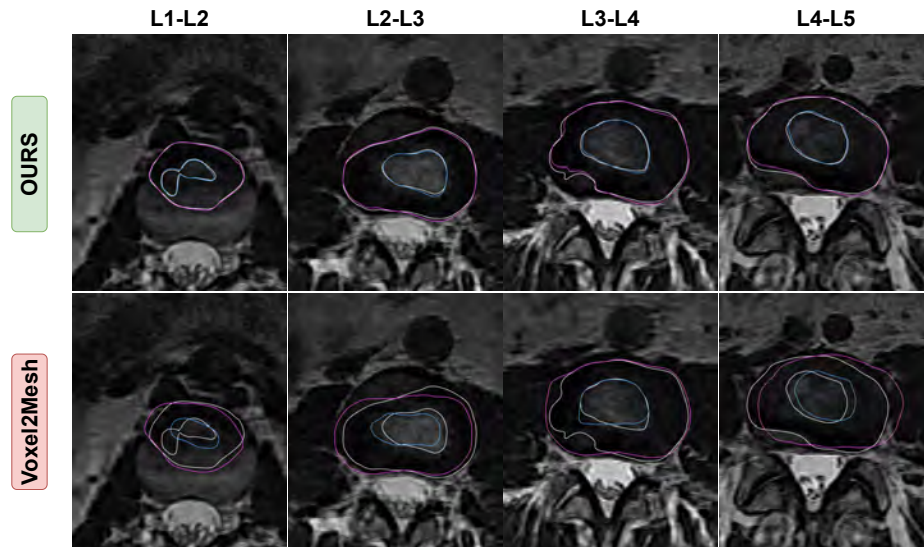


Fig. S1. Comparison of the reconstructions of the L1L5 disc levels between ours (top) and Voxel2Mesh (bottom). The white contours indicate the ground truth AF and NP meshes. The blue contours indicate the reconstructed AF meshes, while the pink contours indicate the reconstructed NP meshes. The higher reconstruction accuracy of our method at adjacent disc levels signifies the importance of local and global anatomical feature fusion.

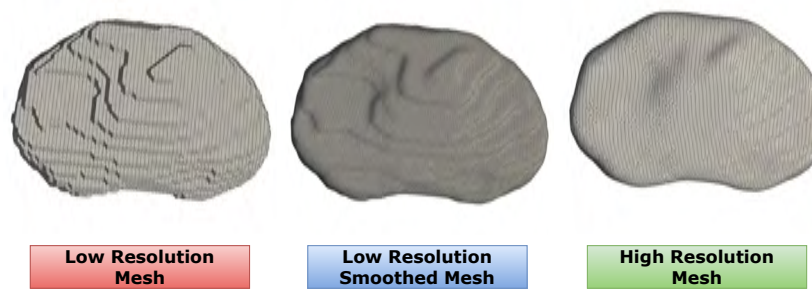


Fig. S2. Comparison of the quality of AF surface meshes

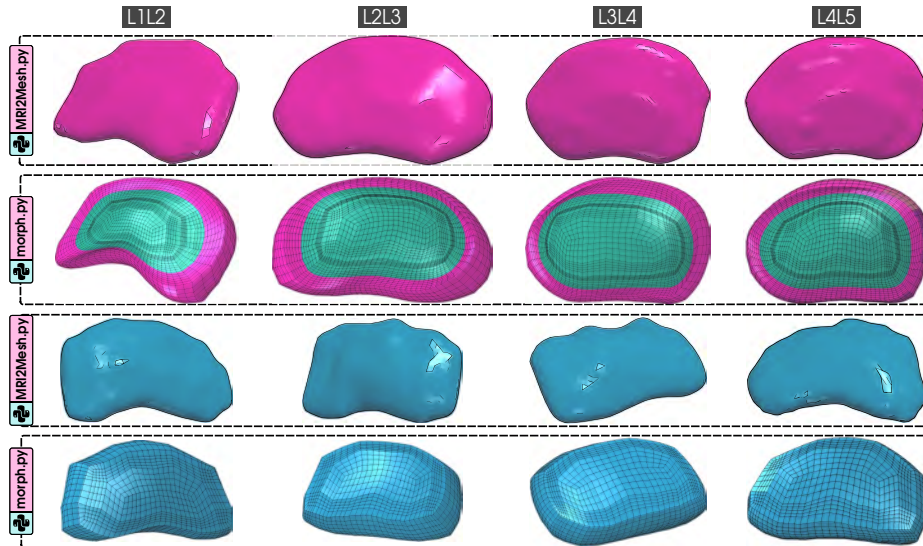


Fig. S3. Visual comparison between the L1-L5 IVD spine levels reconstructed and their morphed models of the annulus fibrosus (top two rows) and nucleus pulposus (bottom two rows) for the patient NC0031.

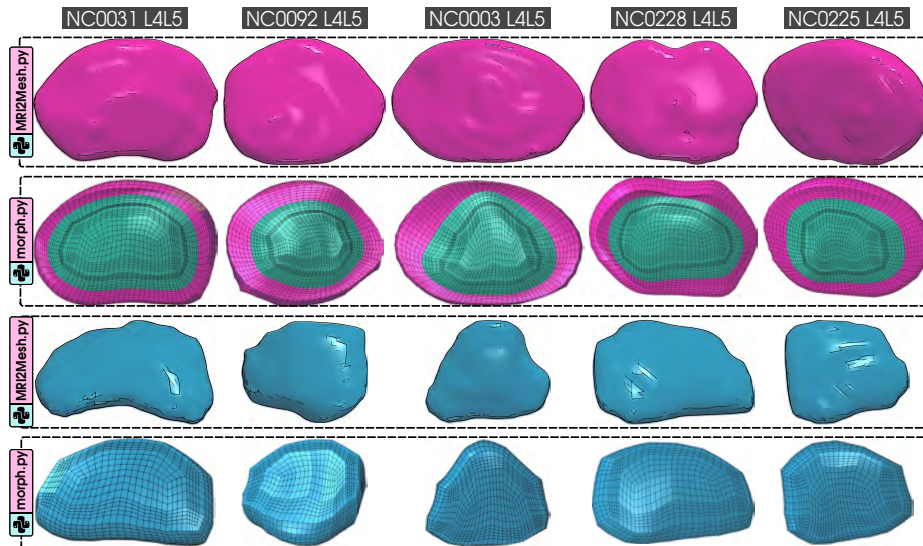


Fig. S4. Visual comparison between the five reconstructed and morphed L4L5 IVD models of the annulus fibrosus (top two rows) and nucleus pulposus (bottom two rows) with disc heights of $\sim 8-16$ mm.