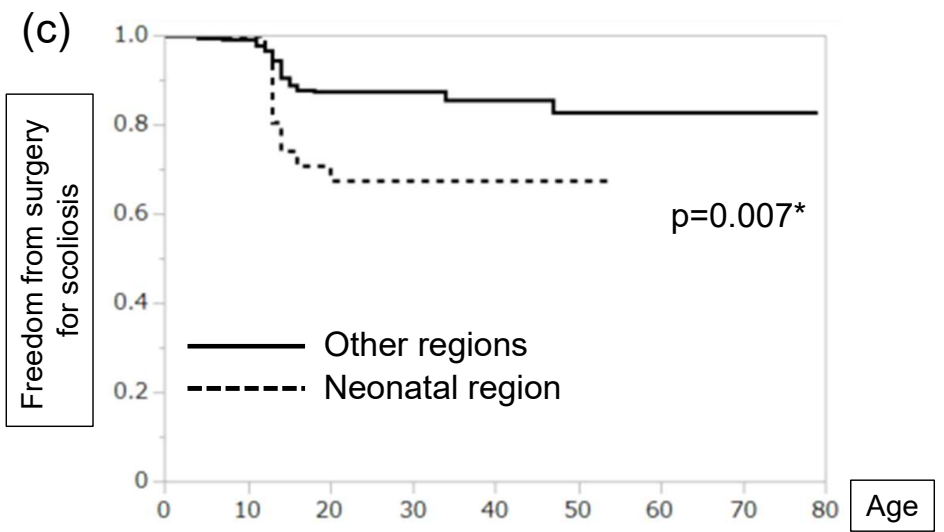
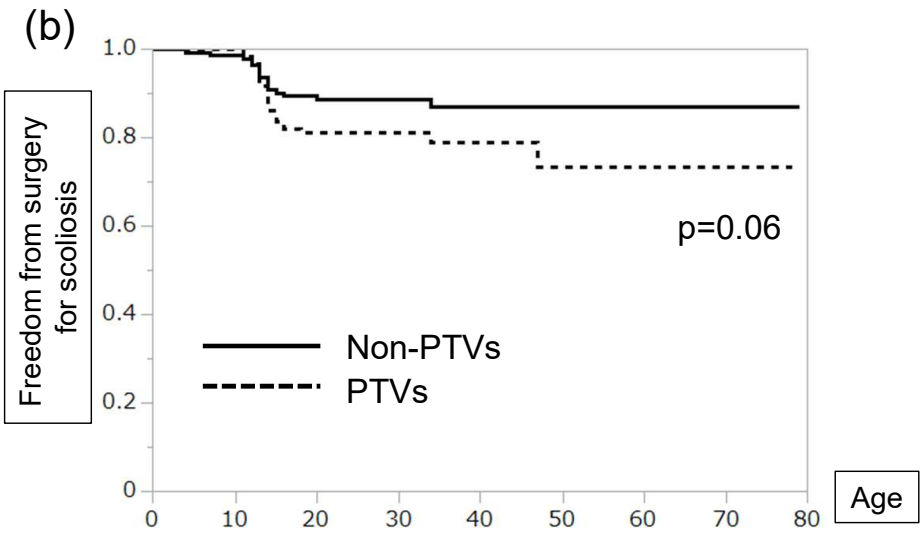
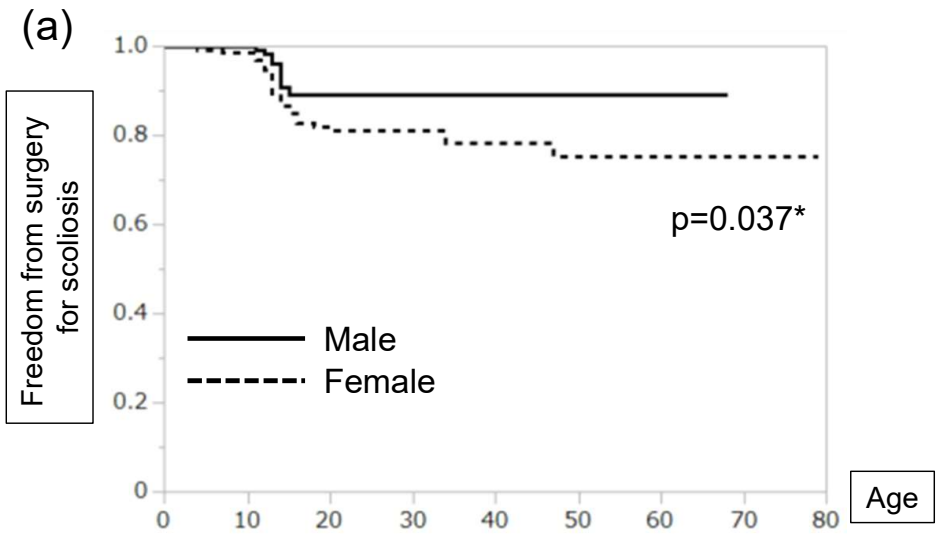
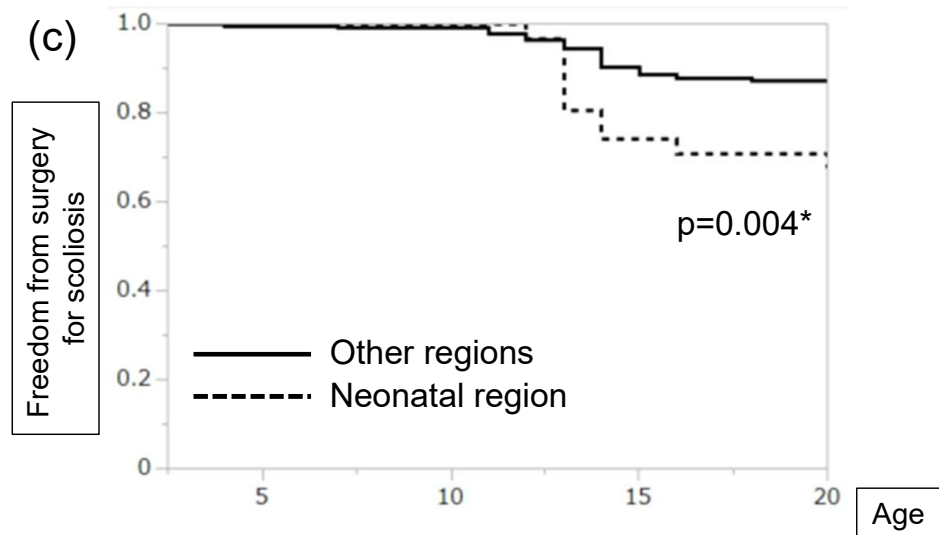
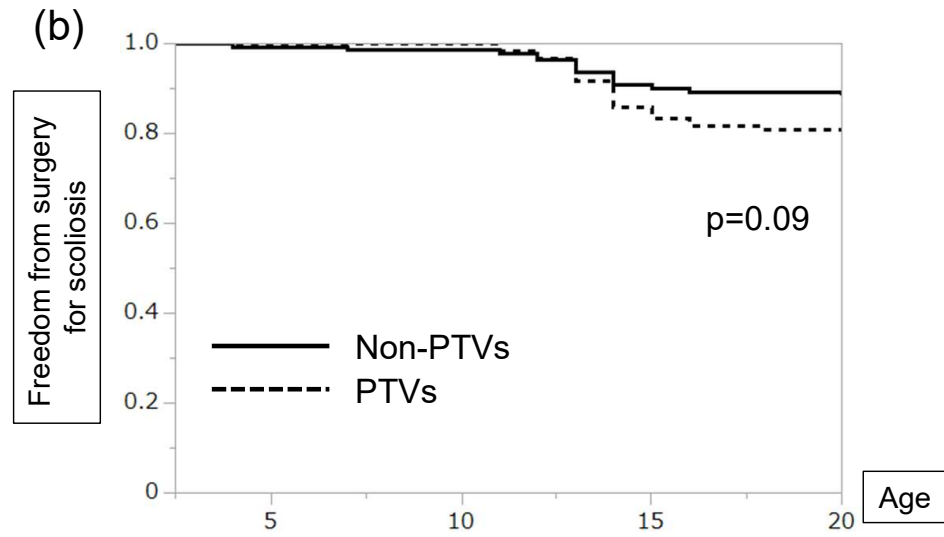
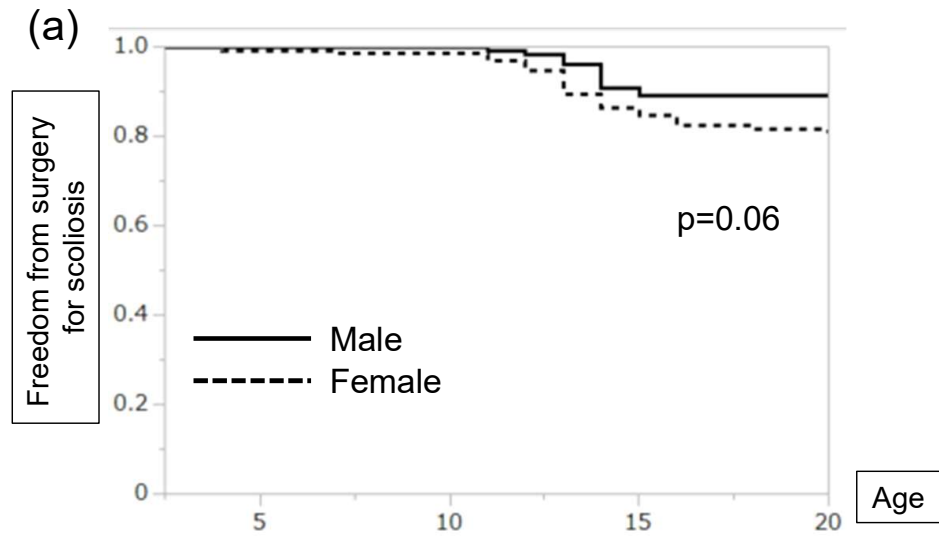


Supplementary Figure 1.



Supplementary Figure 2.



Supplementary Figure 3.

Supplementary Figure Legends

Supplementary Figure 1.

A Kaplan–Meier surgery-free curve for scoliosis by *FBN1* variant types, excluding 15 non-surgical severe cases visually indicated the equivalent impact of PTC-creating variants and IFES variants on the development of severe scoliosis. PTV, protein-truncating variant; IFES, in-frame exon-skipping; PTC, premature termination codon

Supplementary Figure 2.

Kaplan–Meier surgery-free curves for scoliosis, excluding 15 non-surgical severe cases. Kaplan–Meier curves by (a) sex, (b) *FBN1* variant types, and (c) location of *FBN1* variant were constructed. PTV, protein-truncating variant

Supplementary Figure 3.

Kaplan–Meier surgery-free curves for scoliosis for up to 20 years of age, excluding 15 non-surgical severe cases and three cases underwent surgery past the age of 20. Kaplan–Meier curves by (a) sex, (b) *FBN1* variant types, and (c) location of *FBN1* variant were constructed. PTV, protein-truncating variant