Disclosures: XW was the principal investigator and takes primary responsibility for the paper; XW, H.Muramatsu, YO, KY, HS, H.Makishima, and YX designed and performed the research, analyzed the data and wrote the paper; TH, SS, YN, TM, SE, AN, and SD recruited the patients and collected specimens; YS, KC, HT, and SM analyzed the data; NK participated in the analysis and performed the research; OI, KN, AH, and YT coordinated the research; and SO and SK led the entire project and wrote the paper.

Contributions: The authors would like to thank all of the clinicians and families who made this study possible by providing samples. The authors also would like to thank Ms. Yoshie Miura, Ms. Yuko Imanishi, and Ms. Hiroe Namizaki for their valuable assistance. The authors acknowledge the Division for Medical Research Engineering, Nagoya University Graduate School of Medicine for technical support of cell sorting and next-generation sequencing.