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Lääketieteellinen tiedekunta

MONTONEN, EMMI: What Is the Long-term Survivorship of Cruciate-
retaining TKA in the Finnish Registry?

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Survival on cruciate-retaining (CR) TKA is generally good, but there may be important differences in survivorship among devices, and different designs may not all be equally patellar-friendly. The purposes of this study were (1) to assess the long-term survivorship of the most common CR TKA devices with revision for any reason as the endpoint and compare the revision risk of these devices after controlling for the potentially confounding variables of age, sex, hospital volume, and primary diagnosis; and (2) to analyze these same devices with revision for secondary resurfacing of the patella as a separate endpoint.

Data were collected from the Finnish Arthroplasty Register. We assessed Kaplan-Meier (KM) survivorship for each of the four most frequently used CR TKA designs used between years 2005 and 2015: Triathlon CR (n= 34 337), Nexgen CR Flex (n=15 723), PFC Sigma CR (n=15 541), and Vanguard CR (n=9461). We compared the risk of revision of these devices in the Cox multiple regression model with adjustment for age, sex, hospital volume, and primary diagnosis.

The overall 10-year KM survivorship were 96% (95% confidence interval [CI], 95-96) for Nexgen CR Flex, 96% (95% CI, 96-97) for PFC Sigma CR, 94% (95% CI, 93-95) for Triathlon CR, and 94% (95% CI, 93-95) for Vanguard CR. Despite slight differences among the studied devices, the overall 10-year survivorship of the current devices studied was good. However, there were differences in implant survival between the study devices, especially when revision for late patellar resurfacing was analyzed.