

Evidence of ACL healing on MRI following ACL rupture treated with rehabilitation alone may be associated with better patient-reported outcomes: A secondary analysis from the KANON trial

SR Filbay, F Roemer, LS Lohmander, A Turkiewicz, EM Roos, R Frobell, M Englund

Appendix 2. Three examples of evidence of healing on MRI, and one example of non-healing, in participants randomised to rehabilitation and optional delayed ACLR.

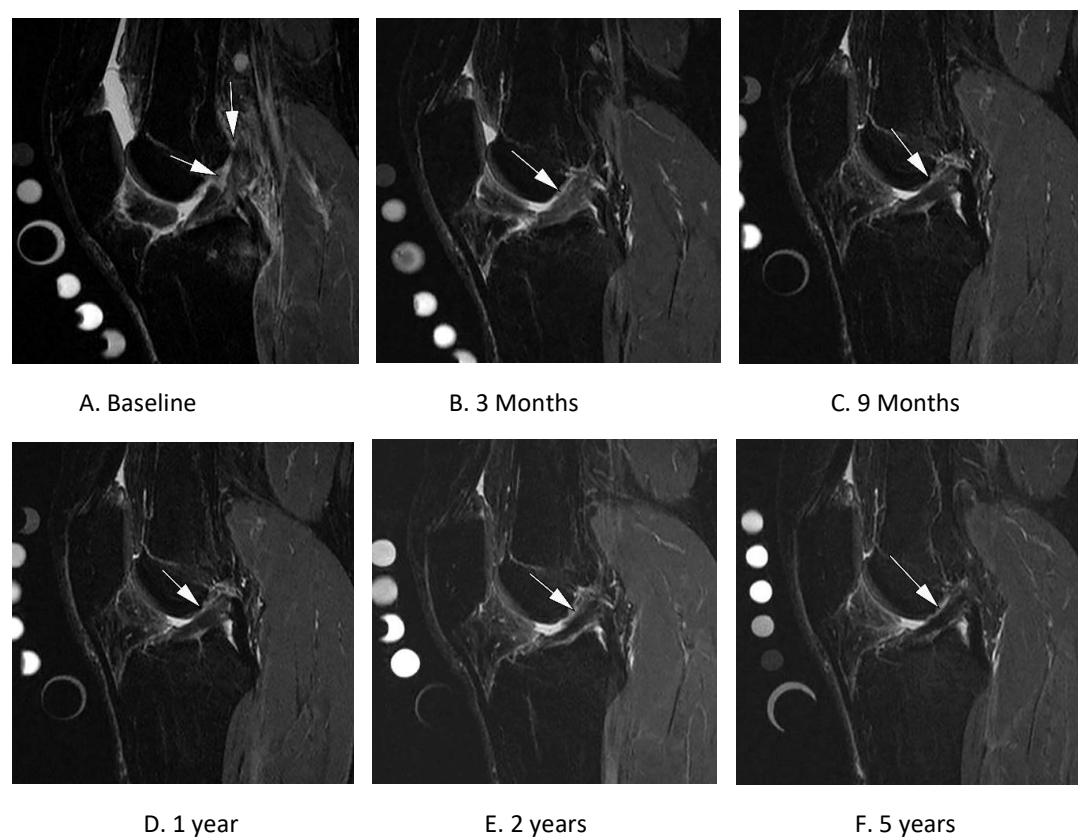


Figure 2. Evidence of ACL healing on MRI over 5 years in a KANON study participant (female, aged 28 years at the time of injury) randomised to rehabilitation and optional delayed ACLR.

- A. Baseline sagittal STIR image shows complete disruption of the proximal ACL near its femoral origin (arrows).
- B. 3-month follow-up MRI shows ligamentous continuity with hyperintense signal (arrow). The ligament shows thickening at this time point.
- C. 9-month MRI shows increasing hypointensity of ligament and persistent continuity (arrow).
- D.-F. The subsequent follow-up MRI examinations show a slightly elongated but continuous ligament at 1, 2 and at 5 years (arrows).

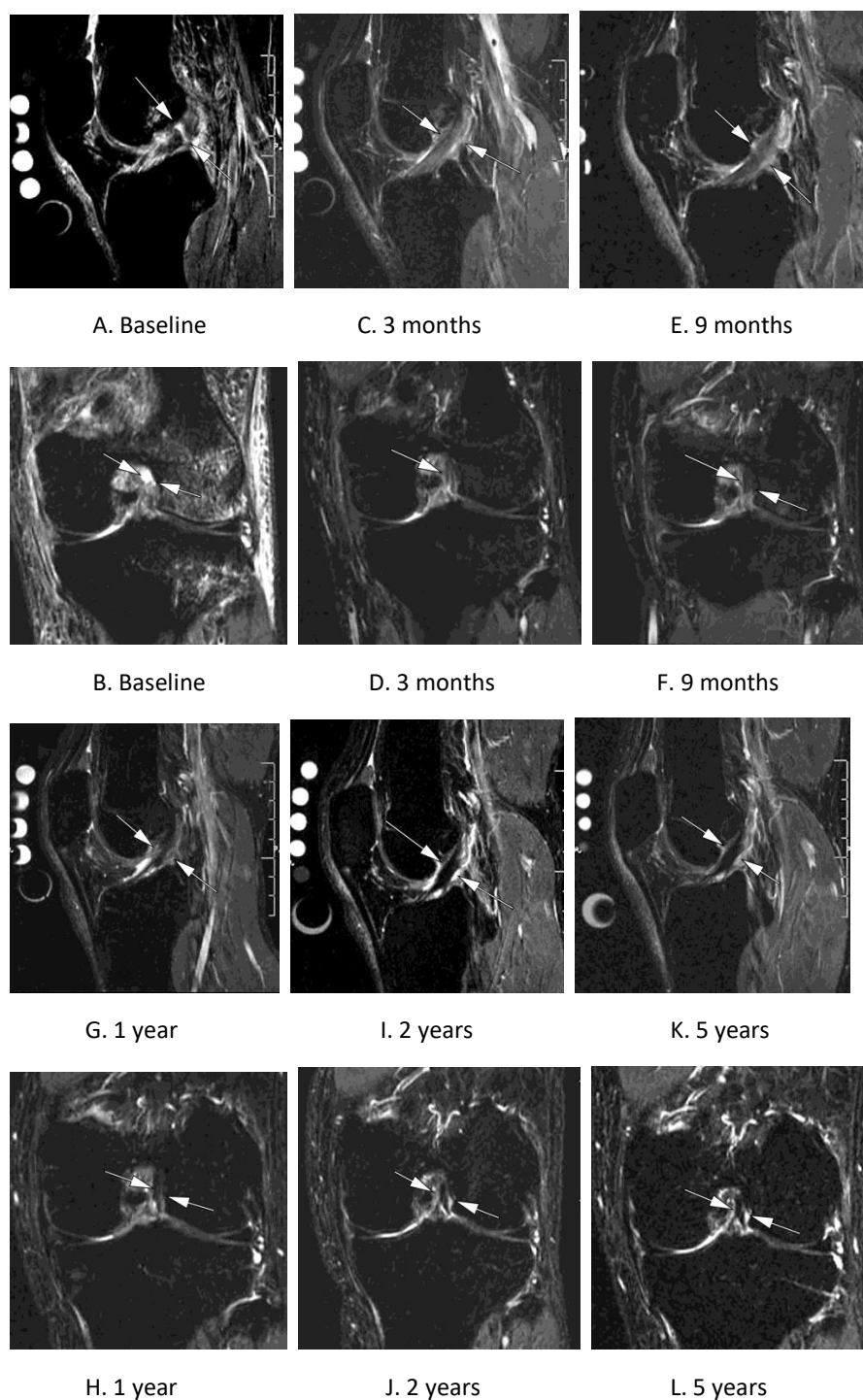


Figure 3. Evidence of ACL healing on MRI over 5 years in a KANON study participant (male, aged 30 years at the time of injury) randomised to rehabilitation and optional delayed ACLR.

A. Baseline sagittal short tau inversion recovery (STIR) MRI shows complete disruption of the ACL with a definite complete discontinuity (arrows).

B. Corresponding coronal STIR image confirms definite discontinuity (arrows) and depicts large bone contusions in the lateral femur and tibia.

C./D. 3-month follow-up MRI shows complete resolution of bone contusion. There is partial ligamentous continuity and some remaining hyperintensity (arrows)

E./F. At 9 months, signal changes persist. Ligamentous continuity is observed.

G./L. The subsequent follow-up MRI examinations show a slightly elongated but continuous ligament at 1 (G./H.), 2 (I./J.) and 5 years (K./L.); (see arrows).

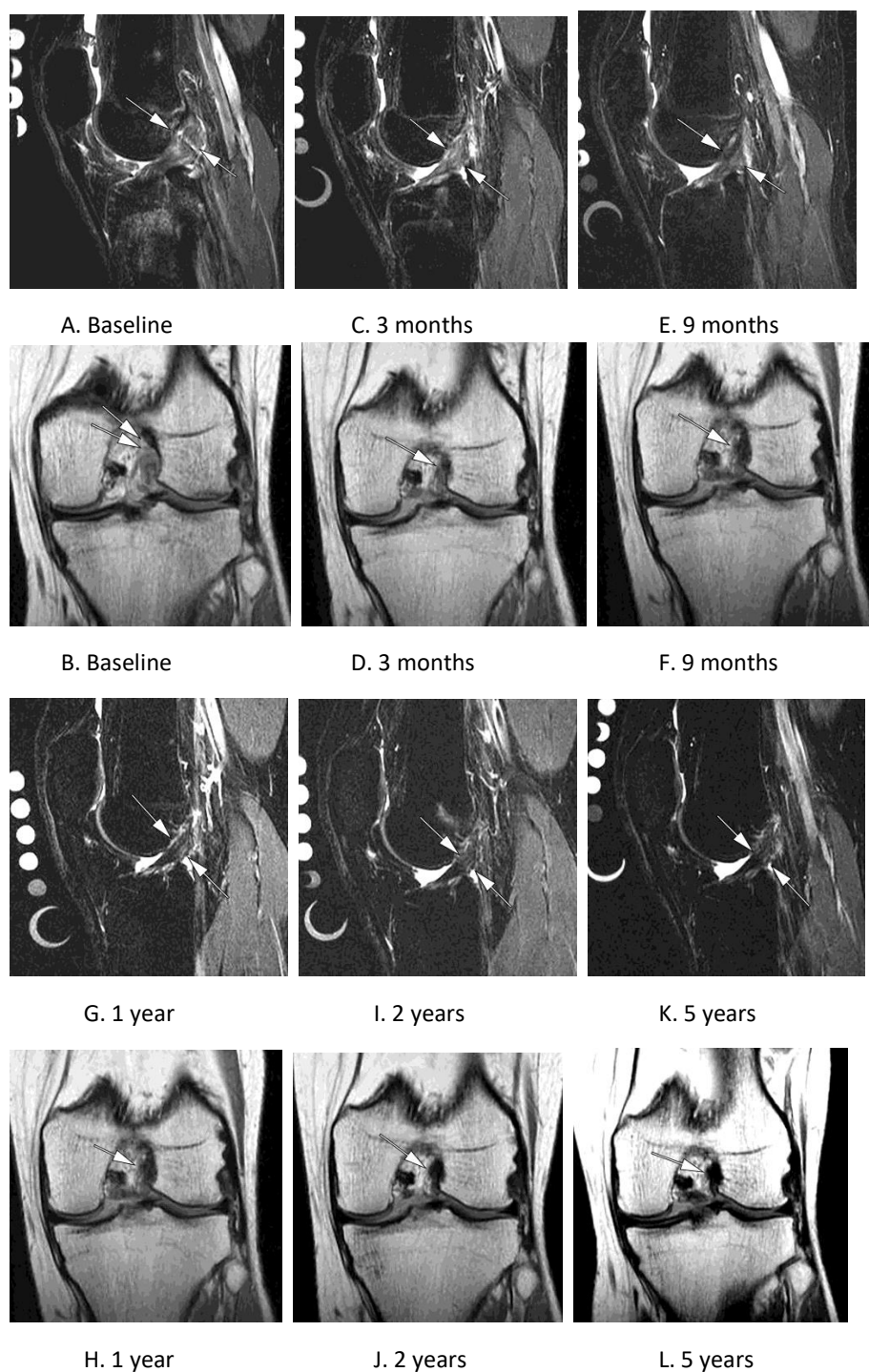


Figure 4. Evidence of ACL healing on MRI over 5 years in a KANON study participant (female, aged 24 years at the time of injury) randomised to rehabilitation and optional delayed ACLR.

A. Baseline sagittal short tau inversion recovery (STIR) MRI shows complete disruption of the ACL with a definite complete discontinuity (arrows).

B. Corresponding coronal PD image confirms definite discontinuity (arrows) and depicts large bone contusions in the lateral femur and tibia.

C./D. 3-month follow-up MRI shows complete resolution of bone contusion. There is partial ligamentous continuity and some remaining hyperintensity (arrows)

E./F. At 9 months, signal changes persist. Ligamentous continuity is observed.

G.-L. The subsequent follow-up MRI examinations show a slightly elongated but continuous ligament at 1 (G./H.), 2 (I./J.) and at 5 years (K./L.) (arrows).

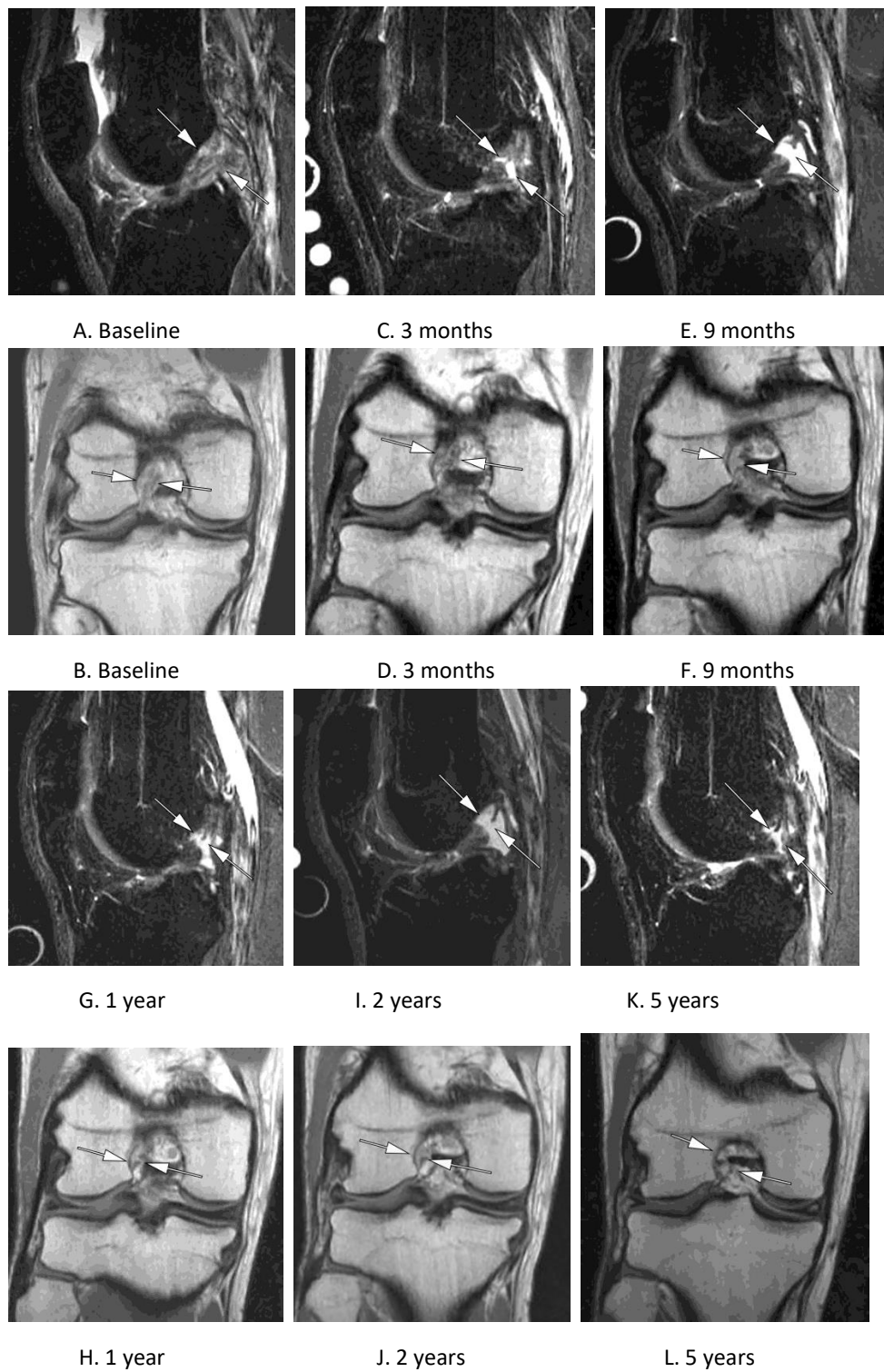


Figure 5. Example of non-healing on MRI over 5 years in a KANON study participant (male, aged 22 years at the time of injury) randomised to rehabilitation and optional delayed ACLR.

A. Baseline sagittal short tau inversion recovery (STIR) MRI show complete disruption of the ACL with a definite complete discontinuity (arrows).

B. Corresponding coronal PD image confirms definite discontinuity (arrows).

C./D. 3-month follow-up MRI shows persistent ligamentous discontinuity.

E.-L. At 9 months (E./F.), 1 year (G./H.), 2 Years (I./J.) and 5 years (K./L.) persistent discontinuity as a reflection of non-healing of ligament is observed (arrows).