

Results

Eight studies reported on 421 patients in which an LEAT procedure was performed. There were two high quality RCTs and six low-quality CS. The follow-up was between 5- and 10-years in 5 studies and >10-years in 3. The presence of moderate/severe osteoarthritis was not detected in three studies and was present in 4/44 (9%) and 13/70 (18.6%) patients in the other two (Table 2). At long-term follow-up, one study demonstrated no osteoarthritis, while the other two reported rates of 54/100 (54%) and 17/24 (71%) respectively at >24 years. In the latter two cases, the rate of meniscal pathology was >50%. A best evidence synthesis revealed that there was insufficient evidence that the addition of LEAT to an ACLR resulted in an increased rate of osteoarthritis.

Table 2: Prevalence of moderate or severe tibiofemoral osteoarthritis at long-term (5-10 years) or very long-term(>10 year) follow-up

Studies	Moderate/severe osteoarthritis			Meniscal age at the surgery
	Overall (%)	Medial	Lateral	Medial
5-to-10-year follow-up				
Zaffagnini 2006: 5-years	0% (0/25)	0% (0)	0% (0)	0/25
Acquitter 2003: 5-years	0% (0/50)	0% (0)	0% (0)	22/50
Anderson 1994: 7-years	18.6% (13/70)	–	–	49/70
Aglietti 1992: 7-years	9% (4/44)*	7% (3/44)	2% (1/44)	10/44
More than 10-year follow-up				
Marcacci 2009: 11 years	0% (0/54)	0% (0)	0% (0)	26/54
Pernin 2010: 11.5 years	24% (24/100)	–	–	57/100
17 years	44% (44/100)	–	–	57/100
24.5 years	54% (54/100)	54 (50/92)	–	57/100
Yamaguchi 2016: 24 years	71% (17/24)	59 (14/24)	41% (10/24)	23/26

*Defined as joint space narrowing ≤ 2 mm

Conclusion

The best available evidence would suggest that the addition of a LEAT to ACLR does not result in an increase rate of osteoarthritis of the knee. In knees that have undergone a combined ACLR and LEAT, the incidence of osteoarthritis was low up to 11 years but increased thereafter. The presence of meniscal injury at the index surgery was reported to be greater predictor of the development of osteoarthritis.

Level of evidence IV.