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**Table Supplement 1.** Risk factors associated with knee arthroplasty (KA) after a cartilage injury 1999-2020. A focal cartilage lesion cohort without any concomitant procedures at index cartilage surgery.

	number of knee arthroplasties (%)	Crude HR <sup>1</sup>		Adjusted HR <sup>2</sup>	
		HR	(95% CI)	HR	(95% CI)
Total	50(19.6%)				
<b>Age at time of surgery(years)<sup>3</sup></b>					
18-29	8 (11.6%)	1		1	
30-39	13 (13.1%)	1.3	(0.5-3.1)	1.3	(0.5-3.1)
>40	29 (33.3%)	4.1	(1.9-9.0)	4.1	(1.9-9.0)
<b>Gender<sup>3</sup></b>					
Male	27 (19.3%)	1		1	
Female	23 (20.0%)	1.1	(0.6-1.9)	1.1	(0.6-1.9)
<b>BMI<sup>4</sup></b>					
<25	6 (7.9%)	1		1	
25-29	23 (22.1%)	3.1	(1.2-7.5)	3.6	(1.4-8.9)
>30	16 (25.8%)	3.8	(1.5-9.7)	5.5	(2.1-14.7)
<b>Size of lesion(mm<sup>2</sup>)<sup>5</sup></b>					
<200 mm <sup>2</sup>	36 (21.6%)	1		1	
≥200 mm <sup>2</sup>	14 (15.9%)	0.7	(0.4-1.3)	0.7	(0.4-1.4)
<b>ICRS grade<sup>5</sup></b>					
1-2	2 (10.5%)	1		1	
3-4	48 (20.3%)	2.5	(0.6-10.5)	2.6	(0.6-10.1)
<b>Level of education<sup>6</sup></b>					
High school	28 (22.6%)	1		1	
Bachelor/Master	18 (14.5%)	0.6	(0.4-1.1)	0.6	(0.3-1.1)
<b>ACL reconstructed at any time<sup>7</sup></b>					
No	43 (18.9%)	1		1	
Yes	7 (25.9%)	1.4	(0.6-3.0)	1.9	(0.8-4.6)
<b>Meniscal resection at any time<sup>8</sup></b>					
Yes	11 (22.4%)	1		1	
No	39(18.9%)	1.4	(0.7-2.7)	1.1	(0.5-2.3)
<b>Location of cartilage lesion<sup>9</sup></b>					
Patellofemoral	9 (14.8%)	1		1	
Medial	32 (20.4%)	1.3	(0.6-2.8)	1.2	(0.6-2.7)
Lateral	9 (24.3%)	1.5	(0.6-3.8)	1.2	(0.4-3.4)
<b>Number of cartilage lesions<sup>10</sup></b>					
1	30 (16.0%)	1		1	
>1	19 (38.0%)	2.6	(1.5-4.7)	2.6	(1.4-4.9)
<b>Treatment at index operation<sup>11</sup></b>					
No cartilage treatment	6 (19.4%)	1		1	
Debridement/Mfx	26 (20.5%)	1.3	(0.5-3.1)	0.6	(0.2-1.8)
ACI	7 (24.1%)	1.5	(0.5-4.4)	1.8	(0.5-6.7)
OATS	11 (20.8%)	1.2	(0.4-3.2)	0.7	(0.2-2.5)
Other	0 (0 %)				
VAS Pain preoperative <sup>12,13</sup>		1.04	(0.99-1.08)	1.49	(0.33-6.52)
Lysholm preoperative <sup>12,13</sup>		0.99	(0.99-1.00)	0.99	(0.97-1.02)

<sup>1</sup>HR=Hazard rate ratio from Cox analysis <sup>2</sup>Cox-adjusted for variables according to graphical causal model <sup>3</sup>Not adjusted. <sup>4</sup> Adjusted for Age at time of surgery, Gender, Level of Education. <sup>5</sup> Adjusted for Age at time of surgery, BMI, Meniscal resection. <sup>6</sup> Adjusted for Gender. <sup>7</sup> Adjusted for Age at time of surgery, BMI, Gender, Level of Education. <sup>8</sup> Adjusted for ACL reconstructed, Age at time of surgery, BMI, Gender, Level of Education. <sup>9</sup> Adjusted for ACL reconstructed, Age at time of surgery, Gender, Meniscal resection. <sup>10</sup> Adjusted for ACL reconstructed, Age at time of surgery, BMI, Gender, Level of Education, Meniscal resection, Size of lesion. <sup>11</sup> Adjusted for Age at time of surgery, ICRS grade, Level of Education, Location of lesion, Number of lesions, Size of lesion. <sup>12</sup> Adjusted for ACL reconstructed, Age at time of surgery, BMI, Gender, ICRS grade, Level of Education, Location of lesion, , Meniscal resection, Number of lesions, Size of lesion. <sup>13</sup> Adjusted for VAS pain and Lysholm analysed as continuous variables.

