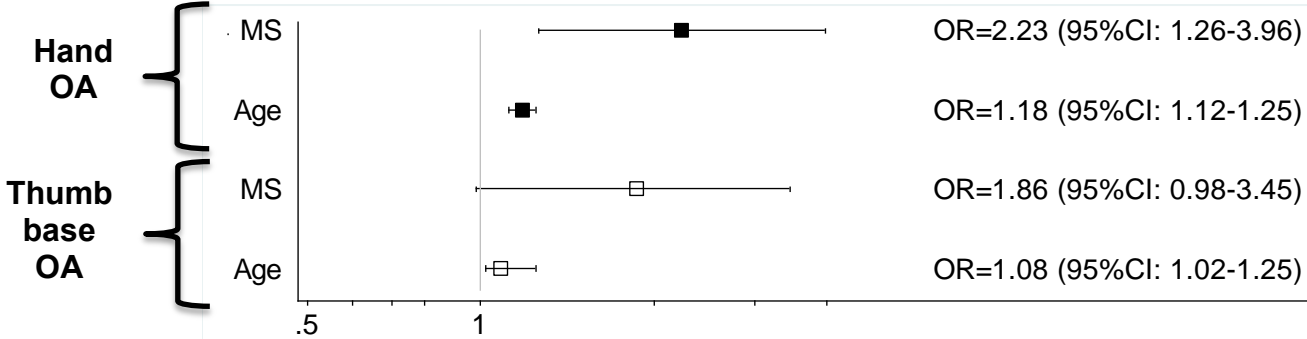


Supplemental materials

Table 1: definition of metabolic syndrome according to International Diabetes Federation (IDF) criteria

Central obesity (defined as waist circumference ≥ 94 and 80 cm for European men and women, respectively, or with ethnicity specific values for other groups)
plus any two of the following four factors: i) triglycerides level ≥ 1.7 mmol/L, or specific treatment for this lipid abnormality, ii) high-density lipoprotein cholesterol < 1 mmol/L in males and < 1.3 mmol/L in females, or specific treatment for this lipid abnormality, iii) increased blood pressure (BP) with systolic BP ≥ 130 or diastolic BP ≥ 85 mm Hg, or treatment of previously diagnosed hypertension, iv) increased fasting plasma glucose ≥ 100 mg/dL (5.6 mmol/L), or previously diagnosed type 2 diabetes

Figure 1: risk factors associated with hand and thumb base osteoarthritis



Black squares: Hand osteoarthritis; White squares: thumb base osteoarthritis. OR: odds ratio, 95% CI: 95% confidence interval. MS: metabolic syndrome (presence or absence). Age (per year); OA: osteoarthritis

Table 2. Determinants of structural severity of radiographic hand osteoarthritis (OA) in the METAFIB-OA study group

	Severity	Univariate p-value	β^3	Multivariate p-value
Sum of KL score				
Age (per year) ¹	$\rho=0.31$	10^{-5}	0.43	<0.0001
MetS (mean, SD) ²				
No	3.7 (6.11)	0.002	2.10	0.04
Yes	6.7 (10.7)			
No. of affected joints with hand OA				
Age (per year) ¹	$\rho=0.32$	10^{-5}	0.43	<0.0001
MetS (mean, SD) ²				
No	1.8 (2.97)	0.002	1.02	0.04
Yes	3.2 (4.93)			

¹ ρ coefficient for Pearson correlation. ²Wilcoxon rank-sum test comparing means.

³ β coefficient of multiple linear regression.

HOA+: Hand osteoarthritis presence, HOA-: Hand osteoarthritis absence

KL: Kellgren-Lawrence score, MetS: metabolic syndrome

Table 3: Risk factors for radiographic thumb-base (TB) OA

Variable	TB OA Diagnosis			Univariate analysis		
	TB OA+ (n=61)	TB OA- (n=240)	P value	OR	95%CI	P value
Socio-demographic variables						
Age (years), mean (SD)	55.3 (5,9)	52.9 (4,9)	0.0008	1.10	(1.04-1.17)	0.001
Male gender, n (%)	55 (90.2)	210 (87.5)	0.4			
Previous hand trauma, n (%)						
HIV characteristics						
Duration of HIV infection (years), mean (SD)	18.5 (7.7)	17.5 (7.2)	0.4			
CD4 level (/mm ³), mean (SD)	593 (257)	631 (268)	0.4			
Undetectable us HIV viral load, n (%) (n=290)	36 (59)	136 (59.4)	0.5			
Duration of exposure to protease inhibitors (months), mean (SD)	25.2 (32.3)	27.6 (32.3)	0.6			
Metabolic variables						
Waist circumference (cm), mean (SD)	93.1 (9.9)	92.3 (11.0)	0.6			
Obesity (BMI≥30), n (%)	6 (9,8)	26 (10.8)	0.5			
Hypertension, n (%)	10 (16,4)	55 (22,9)	0,2			
Triglycerides (mmol/l), mean (SD)	2.04 (1.4)	1.93 (2.02)	0.7			
HDL-cholesterol (mmol/l), mean (SD)	1.19 (0.34)	1.21 (0.39)	0.7			
HOMA score, mean (SD) (n=297)	2.40 (2.9)	2.5 (2.5)	0.8			
Diabetes, n (%)	14 (22,9)	42 (17,5)	0,3			
MetS, n (%)	10 (16.4)	55 (22.9)	0.2	1.86	(0.98-3.45)	0.06

Data are number (%) or mean (SD). Radiographic TB OA definition was presence of ≥ 1 affected joint with a KL score ≥2.

Table 4. Association between plasma biomarkers and radiographic hand OA

	Radiographic hand OA			Univariate analysis		Multivariate
	OA (n=169)	Non-OA (n=127)	P value	OR (95% CI)	P value	OR (95% CI)
hsCRP	3.64 (5.35)	2.72 (3.12)	0.6			
sCD14	2203.8 (915.6)	2010.8 (897.9)	0.02	4.9 (1.1-21.6)	0.03	3.9 (0.9-17.2)
sCD163	721.4 (324.6)	710.4 (299.1)	0.9			
Leptin	9.38 (21.1)	8.54 (13.7)	0.2			
Total adiponectin	4.39 (3.0)	4.34 (2.7)	0.8			
HMW adiponectin	2.11 (2.05)	2.07 (1.84)	0.8			
Leptin/adiponectin ratio	2.72 (5.07)	2.65 (4.75)	0.2			
IL-6	2.35 (5.0)	1.74 (1.46)	0.6			

Abbreviations: hsCRP: high-sensitivity C-reactive protein. HMW: high molecular weight. IL-6: interleukin 6

All data are mean (SD).

¹Adjusted for presence of MetS