

## Supplement material

### Supplement 1. Qualitative assessment of study reporting.

Domain	Questions	Judgments
<b>Risk of bias</b>		
1) Patient selection	<i>Was a consecutive or random sample of patients enrolled?</i>	Yes, No, Unclear
	<i>Was a case-control design avoided?</i>	Yes, No, Unclear
	<i>Did the study avoid inappropriate exclusions?</i>	Yes, No, Unclear
	<i>Could the selection of patients have introduced bias?</i>	Low, High, Unclear
<b>Applicability</b>	<i>Is there concern that the included patients do not match the review questions?</i>	Low, High, Unclear
1) Patient selection		
<b>Risk of bias</b>	<i>Were the index test results interpreted without knowledge of the results of the reference standard?</i>	Yes, No, Unclear
2) Index test	<i>If a threshold was used, was it pre-specified?</i>	Yes, No, Unclear
	<i>Could the conduct or interpretation of the index test have introduced bias?</i>	Low, High, Unclear
<b>Applicability</b>	<i>Is there concern that the index test, its conduct, or interpretation differ from the review question?</i>	Low, High, Unclear
2) Index test		
<b>Risk of bias</b>	<i>Is the reference standard likely to correctly classify the target condition?</i>	Yes, No, Unclear
3) Reference standard	<i>Were the reference standard results interpreted?</i>	Yes, No, Unclear
	<i>If Yes, was it without knowledge of the results of the index test?</i>	Yes, No, Unclear
	<i>Could the reference standard, its conduct, or its interpretation have introduced bias?</i>	Low, High, Unclear
<b>Applicability</b>	<i>Is there concern that the target condition as defined by the reference standard does not match the review question?</i>	Low, High, Unclear
3) Reference standard		
<b>Risk of bias</b>	<i>Was there an appropriate interval between index test(s) and reference standard?</i>	Yes, No, Unclear
4) Flow and timing	<i>Did all patients receive a reference standard?</i>	Yes, No, Unclear
	<i>Did patients receive the same reference standard?</i>	Yes, No, Unclear
	<i>Were all patients included in the analysis?</i>	Yes, No, Unclear
	<i>Could the patient flow have introduced bias?</i>	Low, High, Unclear

**Patients:** Patients with CAD; different types of WSS.

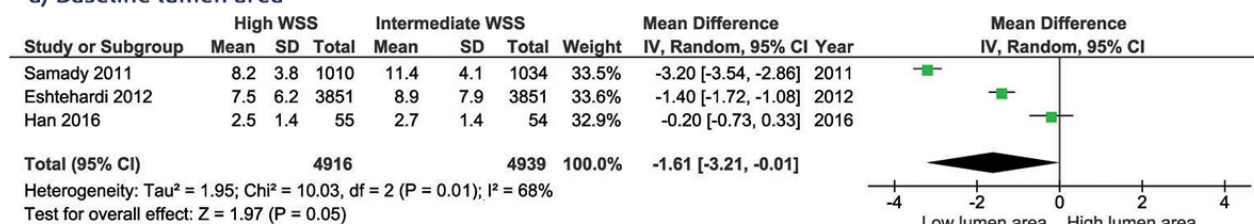
**Index test:** Relationship between types of WSS and plaque morphology.

**Comparator test (if applicable):** Baseline features of vulnerability of coronary artery in different types of WSS.

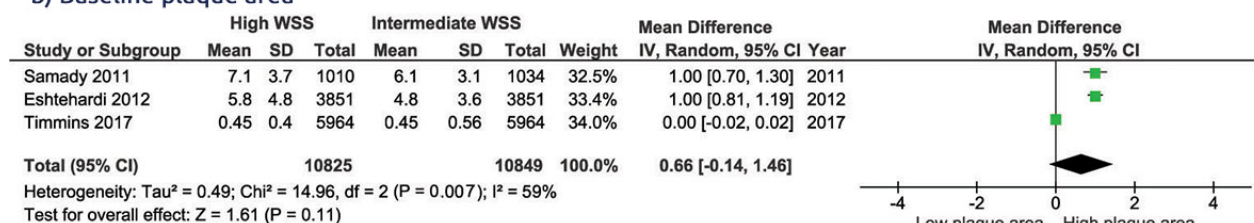
**Target condition:** Role of types of WSS in coronary plaque; reference standard: morphology of coronary plaque.

**Supplementary 2.** Comparison of baseline lumen area, plaque area, plaque burden, and necrotic core in group of intermediate WSS vs. high WSS.

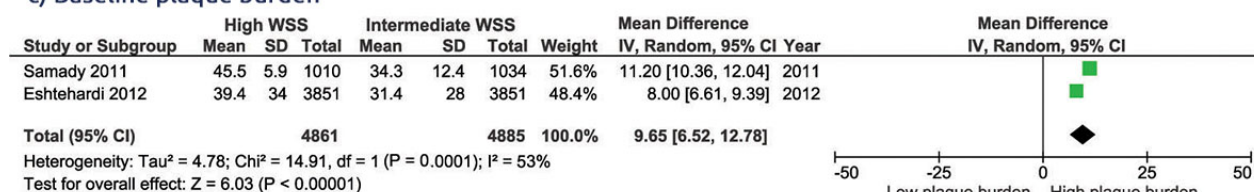
**a) Baseline lumen area**



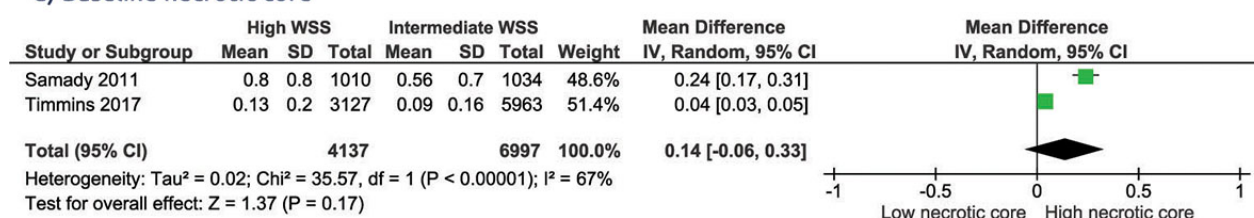
**b) Baseline plaque area**



**c) Baseline plaque burden**

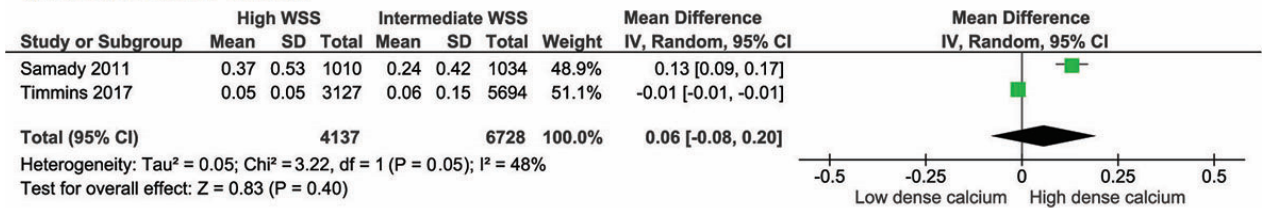


**d) Baseline necrotic core**

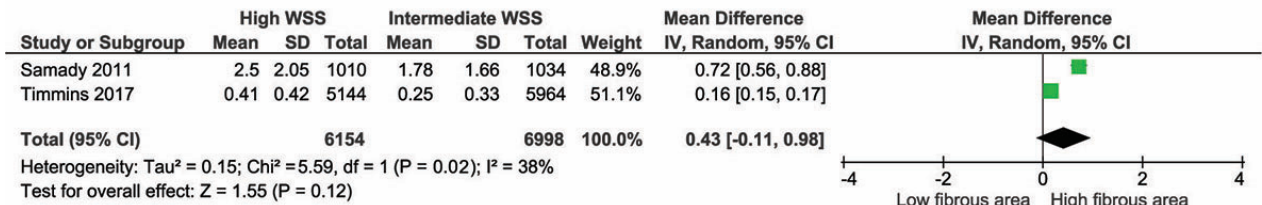


**Supplement 3.** Comparison of baseline dense calcium, fibrous, and fibro-fatty area in group of intermediate WSS vs. high WSS.

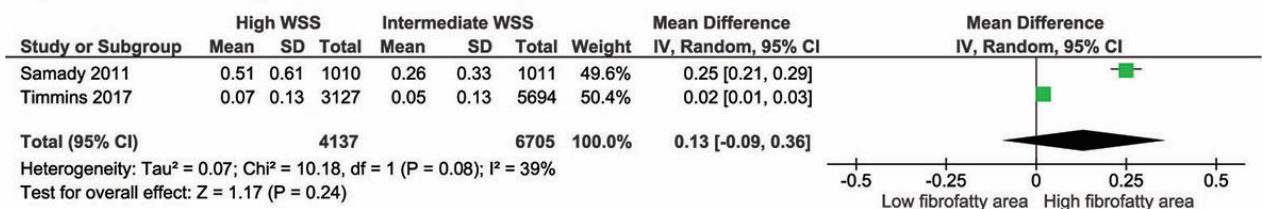
### a) Baseline dense calcium



### b) Baseline fibrous area

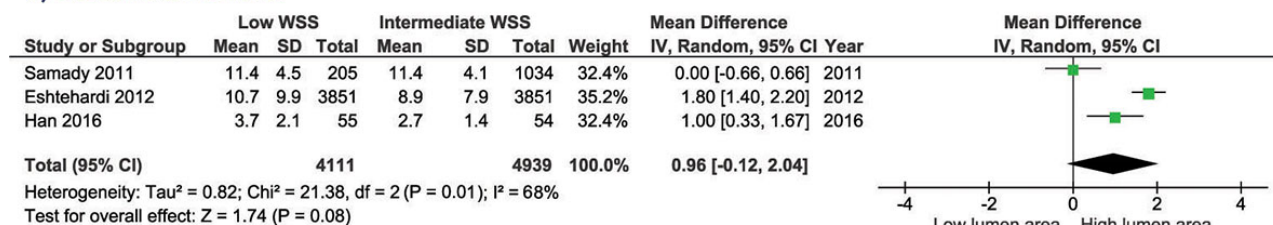


### c) Baseline fibrofatty area

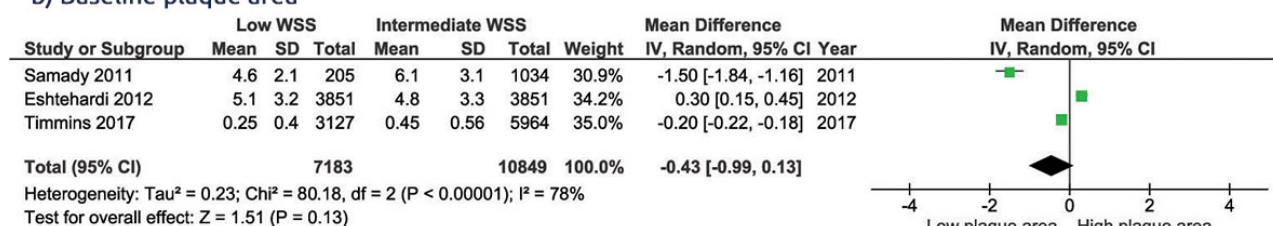


**Supplementary 4.** Comparison of baseline lumen area, plaque area, plaque burden, and necrotic core in group of low WSS vs. intermediate WSS.

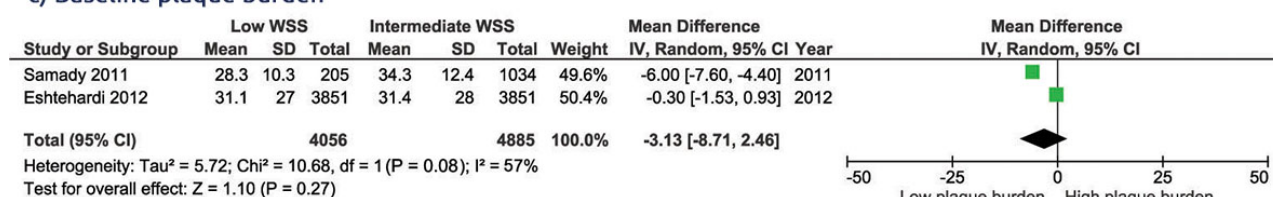
#### a) Baseline lumen area



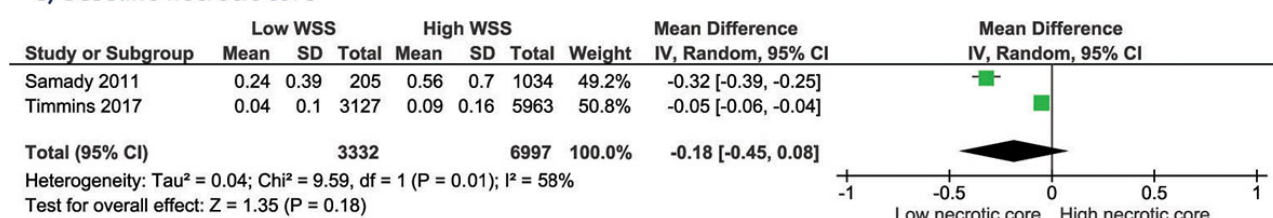
#### b) Baseline plaque area



#### c) Baseline plaque burden

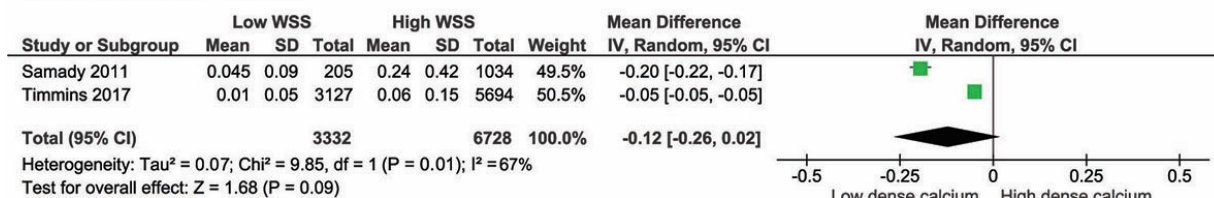


#### d) Baseline necrotic core

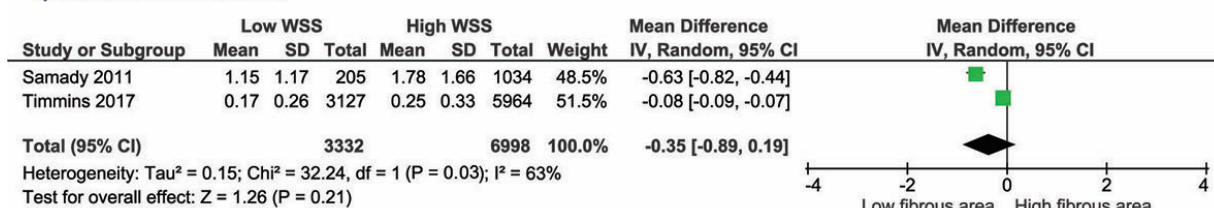


**Supplementary 5.** Comparison of baseline dense calcium, fibrous, and fibro fatty area in group of low WSS vs. intermediate WSS.

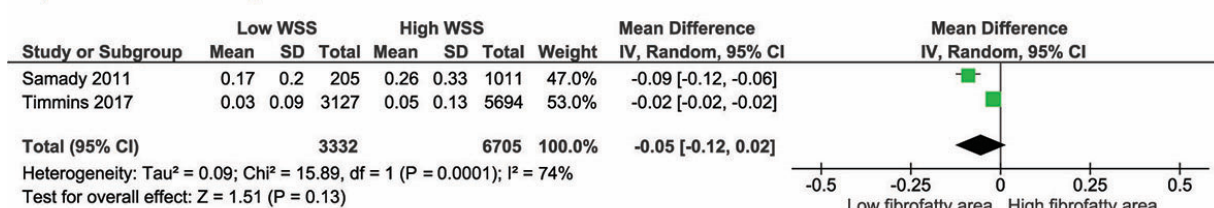
**a) Baseline dense calcium**



**b) Baseline fibrous area**



**c) Baseline fibrofatty area**



**Supplementary 6.** Summary of QUADAS-2 assessment of selected studies.

Author (year)	Risk of bias				Applicability concerns		
	Patients selection	Index test	Reference standard	Flow and timing	Patients selection	Index test	Reference standard
Samady 2011	Low	Low	Low	Low	Low	Low	Low
Eshtehardi 2012	Unclear	Low	Unclear	Low	Unclear	Unclear	Unclear
Timmins 2015	Low	Unclear	Low	Low	Unclear	Unclear	Low
Timmins 2017	Low	Low	Low	Low	Low	Low	Low

**Supplementary 7.** Summary of quality assessment analysis (Quality Assessment of Diagnostic Accuracy Studies-QUADAS 2).

