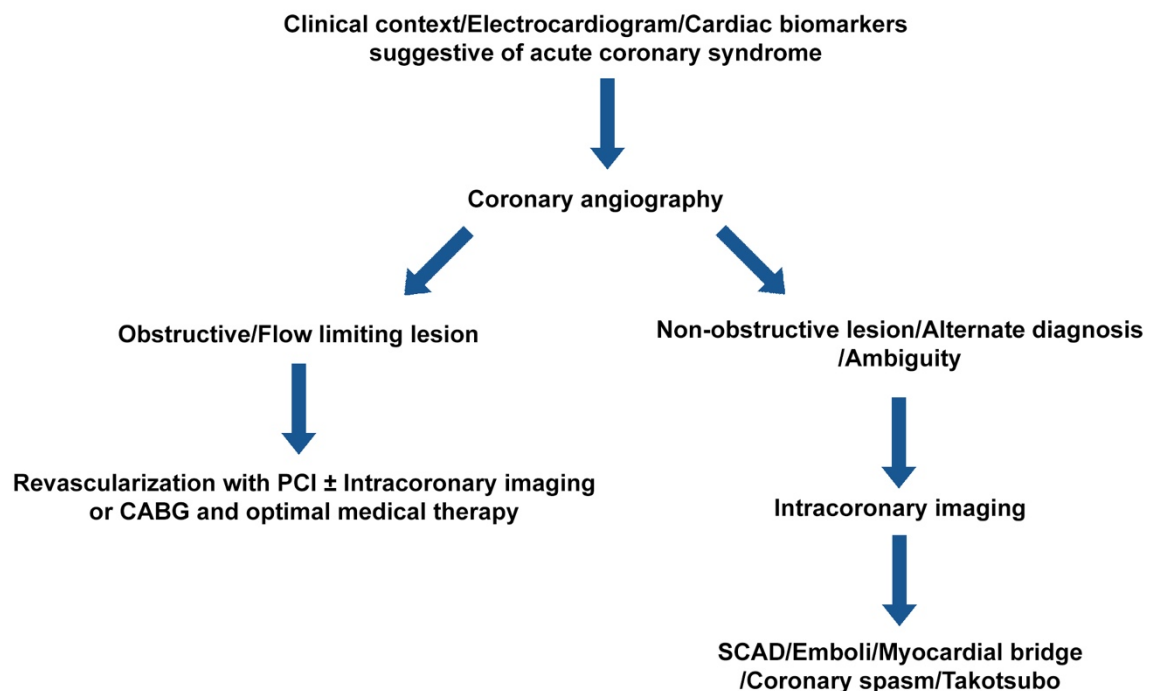


**Supplementary Table 1. Culprit Lesions for Acute Coronary Syndromes Assessed by Optical Coherence Tomography**

<b>Study</b>	<b>RFCs</b>	<b>IFCs</b>	<b>Calcified Nodules</b>	<b>SCAD</b>	<b>Other Causes</b>	<b>Total</b>
<b>Jia et al<sup>1</sup></b>	55	39	10	3	19	126
<b>Niccoli et al<sup>2</sup></b>	82	51	6	-	-	139
<b>Araki et al<sup>3</sup></b>	386	197	65	-	-	648
<b>Dai et al<sup>4</sup></b>	564	209	5	19	25	822
<b>Guagliumi et al<sup>5</sup></b>	63	32	-	2	31	128
<b>Higuma et al<sup>6</sup></b>	72	30	9	1	-	112
<b>Hoshino et al<sup>7</sup></b>	328	182	21	-	-	531
<b>Hu et al<sup>8</sup></b>	79	62	12	-	-	153
<b>Kajander et al<sup>9</sup></b>	34	31	5	-	-	70
<b>Kobayashi et al<sup>10</sup></b>	163	149	21	-	29	362
<b>Kurihara et al<sup>11</sup></b>	467	371	-	-	-	838
<b>Kwon et al<sup>12</sup></b>	90	40	3	-	-	133
<b>Leistner et al<sup>13</sup></b>	128	42	-	-	-	170
<b>Nishiguchi et al<sup>14</sup></b>	160	153	-	13	-	326
<b>Ruscica et al<sup>15</sup></b>	206	113	-	-	79	398
<b>Wang et al<sup>16</sup></b>	37	25	2	-	16	80
<b>Yamamoto et al<sup>17</sup></b>	607	477	157	-	-	1241
<b>TOTAL, n (%)</b>	3,521 (56.1%)	2,203 (35.1%)	316 (5.0%)	38 (0.61%)	199 (3.2%)	6,277

## Supplementary Figure 1: A Practical Algorithm for Intracoronary Imaging in Acute Coronary Syndromes.



## References

1. Jia H, Abtahian F, Aguirre AD, et al. In vivo diagnosis of plaque erosion and calcified nodule in patients with acute coronary syndrome by intravascular optical coherence tomography. *J Am Coll Cardiol* 2013;62:1748–58. <https://doi.org/10.1016/j.jacc.2013.05.071>; PMID: 23810884.
2. Niccoli G, Montone RA, Di Vito L, et al. Plaque rupture and intact fibrous cap assessed by optical coherence tomography portend different outcomes in patients with acute coronary syndrome. *Eur Heart J* 2015;36:1377–84. <https://doi.org/10.1093/eurheartj/ehv029>; PMID: 25713314.
3. Araki M, Yonetsu T, Kurihara O, et al. Circadian variations in pathogenesis of ST-segment elevation myocardial infarction: an optical coherence tomography study. *J Thromb Thrombolysis* 2021;51:379–87. <https://doi.org/10.1007/s11239-020-02220-6>; PMID: 32651890.
4. Dai J, Xing L, Jia H, et al. In vivo predictors of plaque erosion in patients with ST-segment elevation myocardial infarction: a clinical, angiographical, and intravascular optical coherence tomography study. *Eur Heart J* 2018;39:2077–85. <https://doi.org/10.1093/eurheartj/ehy101>; PMID: 29547992.

5. Guagliumi G, Capodanno D, Saia F, et al. Mechanisms of atherothrombosis and vascular response to primary percutaneous coronary intervention in women versus men with acute myocardial infarction: results of the OCTAVIA study. *JACC Cardiovasc Interv* 2014;7:958–68 <https://doi.org/10.1016/j.jcin.2014.05.011>; PMID: 25129664.
6. Higuma T, Soeda T, Abe N, et al. A combined optical coherence tomography and intravascular ultrasound study on plaque rupture, plaque erosion, and calcified nodule in patients with ST-segment elevation myocardial infarction: incidence, morphologic characteristics, and outcomes after percutaneous coronary intervention. *JACC Cardiovasc Interv* 2015;8:1166–76. <https://doi.org/10.1016/j.jcin.2015.02.026>; PMID: 26117464.
7. Hoshino M, Yonetsu T, Usui E, et al. Clinical significance of the presence or absence of lipid-rich plaque underneath intact fibrous cap plaque in acute coronary syndrome. *J Am Heart Assoc* 2019;8:e011820. <https://doi.org/10.1161/JAHA.118.011820>; PMID: 31057022.
8. Hu S, Zhu Y, Zhang Y, et al. Management and outcome of patients with acute coronary syndrome caused by plaque rupture versus plaque erosion: an intravascular optical coherence tomography study. *J Am Heart Assoc* 2017;6:e004730. <https://doi.org/10.1161/JAHA.116.004730>; PMID: 28235809.
9. Kajander OA, Pinilla-Echeverri N, Jolly SS, et al. Culprit plaque morphology in STEMI - an optical coherence tomography study: insights from the TOTAL-OCT substudy. *EuroIntervention* 2016;12:716–23. <https://doi.org/10.4244/EIJV12I6A116>; PMID: 27542783.
10. Kobayashi N, Takano M, Tsurumi M, et al. Features and outcomes of patients with calcified nodules at culprit lesions of acute coronary syndrome: an optical coherence tomography study. *Cardiology* 2018;139:90–100. <https://doi.org/10.1159/000481931>; PMID: 29301128.
11. Kurihara O, Takano M, Kakuta T, et al. Determinants of ST-segment elevation myocardial infarction as clinical presentation of acute coronary syndrome. *J Thromb Thrombolysis* 2021;51:1026–35. <https://doi.org/10.1007/s11239-020-02281-7>; PMID: 32955695.
12. Kwon JE, Lee WS, Mintz GS, et al. Multimodality intravascular imaging assessment of plaque erosion versus plaque rupture in patients with acute coronary syndrome. *Korean Circ J* 2016;46:499–506. <https://doi.org/10.4070/kcj.2016.46.4.499>; PMID: 27482258.
13. Leistner DM, Krankel N, Meteva D, et al. Differential immunological signature at the culprit site distinguishes acute coronary syndrome with intact from acute coronary syndrome with ruptured fibrous cap: results from the prospective translational OPTICO-ACS study. *Eur Heart J* 2020;41:3549–60. <https://doi.org/10.1093/eurheartj/ehaa703>; PMID: 33080003.

14. Nishiguchi T, Tanaka A, Ozaki Y, et al. Prevalence of spontaneous coronary artery dissection in patients with acute coronary syndrome. *Eur Heart J Acute Cardiovasc Care* 2016;5:263–70. <https://doi.org/10.1177/2048872613504310>; PMID: 24585938.
15. Ruscica G, Gatto L, Romagnoli E, et al. Assessment of mechanisms of acute coronary syndromes and composition of culprit plaques in patients with and without diabetes. *JACC Cardiovasc Imaging* 2019;12:1111–2. <https://doi.org/10.1016/j.jcmg.2018.12.016>; PMID: 30772213.
16. Wang L, Parodi G, Maehara A, et al. Variable underlying morphology of culprit plaques associated with ST-elevation myocardial infarction: an optical coherence
17. Yamamoto MH, Maehara A, Song L, et al. Optical coherence tomography assessment of morphological characteristics in suspected coronary artery disease, but angiographically nonobstructive lesions. *Cardiovasc Revasc Med* 2019;20:475–9. <https://doi.org/10.1016/j.carrev.2018.07.011>; PMID: 30054255.