

## Supplementary material

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**TABLE S1** Summary of case reports on the association of antiphospholipid syndrome with myocardial infarction

Authors, year, reference	Sex	Age at first MI (years)	Culprit vessel	Previous ATE, age	Previous VTE, age	SLE or other AID, age at diagnosis	Other risk factors	Antiphospholipid antibodies					Comment	
								LA	aCL		anti-β <sub>2</sub> GPI			
									IgG	IgM	IgG	IgM		
Zafar et al, 2019 <sup>1</sup>	F	32	LMCA, LAD, RI, RCA	-	-	SLE, 19	Hypertension, hyperlipidemia	Yes	No		ND	ND		
Murai et al, 2019 <sup>2</sup>	M	56	LAD	IS, 54	-	SLE, 56	Hypertension, smoking	Yes	ND	ND	ND	ND		
Ayan et al, 2019 <sup>3</sup>	M	23	LAD	-	-	-	Smoking	ND	Yes		Yes		Left ventricular apical thrombus	
González-Cordero et al, 2019 <sup>4</sup>	M	26	LAD	-	PE, 7	-	No known risk factor	Yes	No		No		Stent thrombosis and left ventricular apical thrombus	
Cranley et al, 2019 <sup>5</sup>	F	51	None (MINOCA) Thrombotic occlusion with subsequent recanalisation of atheroma free RCA was suspected	-	DVT, 43	-	ND	Yes	Yes	Yes	ND	ND	Catastrophic APS: acute adrenal insufficiency, microvascular thrombotic renal disease	
Riga et al, 2019 <sup>6</sup>	F	16	None (MINOCA)	-	-	Raynaud's phenomenon	Oral contraceptives	Yes	Yes		Yes	Yes	Livedo reticularis, mild eccentric mitral regurgitation	
Correia et	M	65	RCA	-	-	-	Hypertension	ND	Yes	ND	ND	ND	Stent thrombosis and	

al, 2018 <sup>7</sup>														new coronary thrombosis at another site of RCA 4 days after the event
Peng et al, 2018 <sup>8</sup>	M	29	LAD	-	-	-	Smoking, past history of leukemia	ND	Yes	Yes	ND	ND	Spontaneous coronary artery dissection	
Kawai et al, 2016 <sup>9</sup>	M	36	LAD, RCA	MI	-	-	Smoking, obesity, dyslipidemia,	No	Yes	Yes	Yes	Yes		
Rosenbaum et al, 2015 <sup>10</sup>	F	48	Multifocal small vessel disease (microvascular obstruction)	-	DVTs, recurrent	-	ND	Yes	ND	ND	ND	ND	Catastrophic APS: cardiac microvascular thromboses, multifocal, acute strokes, microvascular infarctions of the dermis, subacute renal infarction	
Vavlukis et al, 2015 <sup>11</sup>	F	40	LAD, DB, CX, OMA	IS, 34	-	PSS, 16	ND	ND	Yes	Yes	ND	ND	Massive acute pulmonary embolism, multiple right ventricle thrombi, death due to cardiogen shock	
Smukowska -Gorynia et al, 2015 <sup>12</sup>	F	43	LAD, CX	-	-	-	Smoking, hyperlipidemia	ND	Yes	No	No	No	Stent thrombosis, recurrent coronary thrombosis	
Lee et al, 2015 <sup>13</sup>	M	39	LAD	-	-	-	Smoking	Yes	No	No	ND	ND	NSTEMI, recurrent stent thrombosis	
Gupta et al, 2015 <sup>14</sup>	F	27	-	-	DVT	SLE, autoimmun hepatitis, AIHA, ITP	ND	Yes	Yes	ND	No	No	Catastrophic APS: acute decompensated heart failure, left brachial vein occlusive thrombosis, intramural coronary artery thrombosis Normal coronary arteries	
Denas et al, 2015 <sup>15</sup>	F	48	LAD, DB	-	-	-	Smoking, obesity	Yes	Yes	ND	Yes	ND	No evidence of coronary atherosclerosis	
Denas et al, 2015 <sup>15</sup>	F	29	-	Vasculitis, microvessel disease, TIA	-	-	-	Yes	Yes	Yes	Yes	Yes	Diffuse microvascular thrombosis leading to myocardial ischemia	

Martí et al, 2014 <sup>16</sup>	M	47	RCA	MI, 38	VTE, 42	-	ND	Yes	Yes	Yes	ND	ND	
Yokokawa et al, 2014 <sup>17</sup>	F	65	LAD	MI, 38	DVT	-	DM, breast cancer, surgery	Yes	ND	ND	ND	ND	
González-Pacheco et al, 2014 <sup>18</sup>	M	28	LMCA	-	-	SLE	ND	ND	ND	ND	ND	Catastrophic APS: ischemic strokes, spleen and renal infarcts APS and SLE laboratory diagnosis was not detailed	
Abdullah et al, 2014 <sup>19</sup>	F	61	LAD, RCA, LCX	-	-	-	No known risk factor	ND	Yes	Yes	Yes	NSTEMI, recurrent stent thrombosis	
Tabata et al, 2013 <sup>20</sup>	F	75	-	-	-	ITP	ND	No	Yes	Yes	Yes	NSTEMI	
Snipelisky et al, 2013 <sup>21</sup>	M	55	RCA	-	-	-	Heterozygous prothrombin 20210A mutation	Yes	ND	ND	ND	ND	Stent thrombosis, recurrent coronary thrombosis
Thapamagar et al, 2013 <sup>22</sup>	M	30	LAD, CX, RCA	MI, 20	-	-	No known risk factor	ND	Yes	ND	Yes	ND	
Gualtierotti et al, 2013 <sup>23</sup>	M	28	RCA	-	DVT, PE, recurrent	-	ND	Yes	Yes	ND	ND	ND	
Gualtierotti et al, 2013 <sup>23</sup>	F	28	-	-	-	-	Elevated factor VIII, heterozygous MTHFR C677T mutation and factor V Leiden mutation, oral anticonceptive	Yes	Yes	ND	ND	ND	Normal coronary arteries
Paroli et al, 2012 <sup>24</sup>	F	46	-	MI, recurrent IS,	-	Churg- Strauss syndrome	No known risk factor	ND	ND	ND	Yes	ND	NSTEMI
Javaid et al, 2012 <sup>25</sup>	M	34	RCA	-	Renal vein thrombosis, 28	MCTD, Raynaud's phenomenon, membranous nephropathy, 28 SLE, 34	Past smoking, nephrosis syndrome	Yes	No	ND	ND		
Miranda et al, 2012 <sup>26</sup>	F	37	LAD	-	-	SLE, 23	No known risk factor	Yes	Yes	No	Yes	No	
Katikireddi	F	25	-	-	PE	ITP, Hashimoto's	Hypertension,	Yes	Yes	Yes	ND	ND	Catastrophic APS:

et al, 2012 <sup>27</sup>						thyroiditis	dyslipidemia						septic shock, multiple small vessel thromboses with normal coronary arteries, death due to cardiogenic shock
Sharma et al, 2011 <sup>28</sup>	M	28	LAD	-	-	-	No known risk factor	Yes	Yes	ND	Yes	ND	Intracardiac thrombus
Park et al, 2011 <sup>29</sup>	F	48	LAD, RI	-	-	-	No known risk factor	Yes	No		No		NSTEMI
Park et al, 2011 <sup>29</sup>	F	36	LAD	-	PE, 22	SLE, 20	ND	ND	ND	ND	ND		Laboratory diagnosis of APS was not detailed
Cakmak et al, 2011 <sup>30</sup>	F	22	LAD	-	-	-	12 weeks pregnant	Yes	No	No	Yes	Yes	Stent thrombosis, left ventricular thrombus
Abid et al, 2011 <sup>31</sup>	F	30	LAD	-	-	-	No known risk factor	No	Yes	Yes	Yes	Yes	
Abid et al, 2011 <sup>31</sup>	M	30	-	-	-	-	Smoking	Yes	No	Yes	ND	ND	Bilateral acute ischemia of both legs, apical left ventricular thrombus, heart failure, death due to multiorgan failure
Mito et al, 2011 <sup>32</sup>	M	55	LAD	-	-	-	Hypertension, dyslipidemia, smoking	Yes	ND		No		Stent thrombosis
Biceroglu et al, 2010 <sup>33</sup>	M	44	RCA, CX	-	Recurrent DVTs, 36	-	ND	ND	Yes		ND	ND	
Grzybczak et al, 2010 <sup>34</sup>	M	43	LAD	-	-	-	Hyperlipidemia	No	Yes	No	Yes	No	Recurrent stent thrombosis and anterior STEMI
Miyamoto et al, 2010 <sup>35</sup>	M	32	LAD, RCA	-	-	-	Smoking	ND	Yes	ND	Yes	ND	Recurrent coronary thrombotic events, „braid-like” anomaly at mid to distal RCA
Sussman et al, 2010 <sup>36</sup>	M	29	LAD, RCA	-	DVT, recurrent	Ulcerative colitis	Social drinking, heterozygous factor V Leiden mutation	Yes	ND	ND	Yes		Death due to PE
Morchi et al, 2009 <sup>37</sup>	M	17	RCA, right ventricular marginal branches, PDA	-	-	-	Hystory of hypoplastic left heart syndrome with mitral and aortic stenosis and	Yes	ND	ND	ND	ND	Portal hypertension, splenomegaly, esophageal varices, gastrointestinal bleeding, congestive

							Norwood palliation						liver disease
Reade et al, 2008 <sup>38</sup>	M	28	LMCA	-	-	-	ND	Yes	ND	ND	ND	ND	Severely depressed left ventricular function, cardiac transplantation
Abu Romeh et al, 2007 <sup>39</sup>	F	44	RCA, ascending aorta	-	-	History of childhood ITP	Smoking, oral contraceptives	Yes	No	ND	ND	Large thrombus in the ascending aorta extending into the right coronary ostium, large pontine infarct, basilar artery occlusion, excision of the right coronary mass and mitral valve repair, postoperative DVT	
Kiernan et al, 2007 <sup>40</sup>	F	34	LAD	-	-	-	7 days postpartum (spontaneous delivery)	ND	ND	Yes	ND	ND	SCAD
Williams et al, 2007 <sup>41</sup>	M	26	-	-	DVT, recurrent	-	Cocain and ecstasy abuse, smoking	ND	Yes	No	Yes	Yes	Erythematous rash
Yamamoto et al, 2007 <sup>42</sup>	M	48	Intramycardial small vessels	IS, 48	-	-	No known risk factor	ND	Yes	ND	ND	Catastrophic APS, Libman-Sacks endocarditis, encephalopathy, death due to multiorgan failure	
Davies et al, 2007 <sup>43</sup>	M	29	-	-	-	-	No known risk factor	Yes	No	ND	ND	Normal coronary arteries	
Davies et al, 2007 <sup>43</sup>	F	47	-	-	-	-	No known risk factor	Yes	No	ND	ND	Normal coronary arteries, NSTEMI	
Davies et al, 2007 <sup>43</sup>	M	23	-	-	-	-	No known risk factor	Yes	Yes	No	ND	ND	Normal coronary arteries, muscle bridge in mid LAD
Davies et al, 2007 <sup>43</sup>	M	48	-	-	-	-	Smoking	Yes	No	ND	ND	Ventricular fibrillation, normal coronary arteries	
Davies et al, 2007 <sup>43</sup>	M	29	LAD	-	-	-	Smoking	Yes	No	No	ND	ND	Large thrombus in the LAD
Ikeda et al, 2006 <sup>44</sup>	F	44	CX	-	DVT, 42	SLE, 21	Smoking	Yes	ND	ND	No	No	
Raddino et	F	19	LAD	-	-	-	Occasional cocaine	Yes	Yes	ND	ND		

							abuse						
al, 2005 <sup>45</sup>													
Gotsman et al, 2005 <sup>46</sup>	F	40	-	-	-	-	Heavy smoking, Factor V Leiden heterozygous	Yes	ND	ND	ND	Yes	Normal coronary arteries
Santos et al, 2004 <sup>47</sup>	M	54	RCA, LAD	-	-	-	Hyperlipidemia, type 2 diabetes, smoking, HIV infection, Factor V Leiden mutation, hypertension	Yes	Yes	No	No	No	Recurrent coronary thrombosis, stent thrombosis
Musuraca et al, 2004 <sup>48</sup>	M	53	RCA, LAD	-	VTE, 53	-	No known risk factor	Yes	Yes	No	ND	ND	Recurrent coronary thrombosis, stent thrombosis
Koschmieder et al, 2003 <sup>49</sup>	F	33	-	-	Budd-Chiari syndrome, hepatic vein thrombosis, 31 VTE, recurrent	-	G6PD deficiency, low protein S	Yes	Yes	Yes	Yes	Yes	Catastrophic APS, bilateral infiltrates of the lung, ARDS, peripheral arterial ischemic thromboembolism, skin necrosis
Stoupakis et al, 2003 <sup>50</sup>	M	32	LAD	-	-	-	Smoking, sedentary lifestyle, hyperlipidemia, elevated homocysteine level, homozygous MTHFR A1298C mutation	Yes	Yes	No	ND	ND	
Kürüm et al, 2003 <sup>51</sup>	F	29	-	-	-	-	Postpartum, hypertension, pre-eclampsia	Yes	Yes	Yes	ND	ND	Microvascular thrombosis
Sajeew et al, 2003 <sup>52</sup>	F	37	-	-	-	-	No known risk factor	No	ND	Yes	ND	ND	NSTEMI, normal coronary arteries
Su et al, 2003 <sup>53</sup>	F	61	LAD	-	-	-	No known risk factor	No	Yes	Yes	Yes	Yes	Stent occlusion
De Vries et al, 2002 <sup>54</sup>	F	33	-	-	DVT, PE, sinus thrombosis	-	Abdominal uterine myoectomy	Yes	Yes	Yes	ND	ND	
Famularo et al, 2002 <sup>55</sup>	M	37	LAD	-	Retinal vein thrombosis	Behcet's disease	No known risk factor	Yes	No	No	No	No	Stent thrombosis

Lagana et al, 2001 <sup>56</sup>	M	37	-	TIA, recurrent	Recurrent DVT, 35	-	ND	Yes	Yes	Yes	ND	ND	
Okamoto et al, 2000 <sup>57</sup>	M	14	LCA	-	-	-	No known risk factor	ND	Yes	No	ND	ND	Anomalous LMCA
Ogimoto et al, 2000 <sup>58</sup>	F	62	LAD	-	-	-	No known risk factor	Yes	No		ND	ND	Portal and splenic vein occlusions post-event

Empty boxes refer to no data or lack of event/disease. Abbreviations: aCL, anticardiolipin antibody; AID, autoimmune disease; anti-β2GPI, anti-β2 glycoprotein-1 antibody; AIHA, autoimmune hemolytic anaemia; APS, antiphospholipid syndrome; ARDS, acute respiratory distress syndrome ATE, arterial thrombotic event; CX, circumflex coronary artery; DB, diagonal branch; DM, diabetes mellitus; DVT, deep vein thrombosis; F, female; G6PD, glucose-6-phosphate-dehydrogenase; HIV, human immunodeficiency virus; IgG, immunoglobulin G isotype; IgM, immunoglobulin M isotype; IS, ischemic stroke; ITP, immune thrombocytopenic purpura; LA, lupus anticoagulant; LAD, left anterior descending artery; LCA, left coronary artery; LMCA, left main coronary artery; M, male; MCTD, mixed connective tissue disorder; MI, myocardial infarction; MINOCA, myocardial infarction with non-obstructive coronary arteries; MTHFR, methylenetetrahydrofolate reductase; ND, no data; NSTEMI, non-ST-elevation myocardial infarction; OMA, obtuse marginal artery; PDA, posterior descending artery; PE, pulmonary embolism; PSS, progressive systemic sclerosis; RCA, right coronary artery; RI, ramus intermedium; SCAD, spontaneous coronary artery dissection; SLE, systemic lupus erythematosus; STEMI, ST-elevation myocardial infarction; TIA, transient ischemic attack; VTE, venous thromboembolism

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