

Supplementary material

Bereczky Z, Balogh L, Bagoly Z. Inherited thrombophilia and the risk of myocardial infarction: current evidence and uncertainties. *Kardiol Pol.* 2019; 77: 419-429. doi:10.33963/KP.14804

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Table S1 Summary of case reports on the association of antithrombin-, protein C-, and protein S-deficiencies with myocardial infarction (MI) and acute ischemic stroke (IS).										
Authors, year, reference	Age, (years)	Sex	ATE	Culprit vessel	VTE, age (years)	Other risk factors	AT/PC/PS levels (%)	Type of deficiency	Causative mutation	Family history
Antithrombin deficiency										
§Shimizu et al, 2001, [1]	21	M	IS	N.D.	Yes, 33	N.D.	14	IIHBS	p.Arg79Cys (HoZ)	ATE
Peovska et al, 2008, [2]	24	M	MI	LAD	No	No	48	I	N.D.	N.D.
Tu et al, 2009, [3]	22	M	MI	LAD, RCA	No	No	44	I	N.D.	N.D.
§Szilagyi et al, 2012, [4]	15	M	MI/IS	LAD/MCA	No	Elevated Lp(a)	72	IIHBS	p.Pro73Leu (HeZ)	N.D.
§Szymanska et al, 2013, [5]	41	M	IS	ACA	Yes, 39	No	58	I	nt9788G>A (HeZ)	ATE
§Nadir et al, 2015, [6]	33	F	MI	LAD, CX	Yes, 23†	MTHFR C677T HoZ	48	I	g.5924delC (HeZ)	N.D.
§Kovac et al, 2016, [7]	25	F	IS	Lacunar region	Yes, 18†	No	65	IIHBS	p.Leu131Phe (HoZ)	N.D.
§Le Quellec et al, 2018, [8]	32	F	MI	LAD	Yes, 30*	No	65	IIHBS	p.Leu131Phe (HeZ)	VTE
Protein C deficiency										
Sadiq et al, 2001, [9]	22	F	MI	LAD	No	No	33	N.D.	N.D.	No
Tiong et al, 2003, [10]	26	F	MI	RCA	No	Smoking, marihuana	53	N.D.	N.D.	N.D.

Peterman et al, 2003, [11]	19	M	MI	LAD	No	Cocaine, Hchol	45	II	N.D.	N.D.
Cakir et al, 2007, [12]	42	F	MI	LAD	Yes, 41	HHcy	44	N.D.	N.D.	IS, MI
Yang et al, 2008, [13]	31	M	IS	MCA	No	No	46	I	N.D.	IS
Eshtehardi et al, 2010, [14]	20	M	MI	LAD	No	No	34	N.D.	N.D.	N.D.
Hisatomi et al, 2011, [15]	39	F	MI	LM	No	N.D.	44	N.D.	N.D.	N.D.
Cheng et al, 2012, [16]	23	M	MI	N.D.	No	Smoking	ND	N.D.	N.D.	N.D.
§Tajima et al, 2013, [17]	44	M	IS	MCA	No	No	<5	I	p.Pro369Leu (HeZ)	MI, IS
Maqbool et al, 2013, [18]	37	M	MI	LAD	Yes, 37	No	42	N.D.	N.D.	N.D.
§Wypasek et al, 2013, [19]	28	M	MI	LAD	No	Hchol, smoking, obesity	48	I	p.Gly109Arg (HeZ)	N.D.
§Ichiyama et al, 2016, [20]	2 day-old	M	IS	N.D.	No	No	56	I	p.Lys193del (HeZ)	No
Maki et al, 2017, [21]	21	F	MI and PAD	N.D.	Yes, 21	Obesity	41	N.D.	N.D.	N.D.
Hubert et al, 2018, [22]	40	M	MI	LAD	No	FVL HeZ	61	N.D.	N.D.	VTE
Iwamoto et al, 2018, [23]	40	F	IS	MCA	No	OAC	48	I	N.D.	N.D.
§Li et al, 2018, [24]	35	F	IS	Cerebellar region	Yes, 31	No	58	I	c.565C/T p.Arg147Trp (HeZ)	No
Protein S deficiency										
§Ogasawara et al, 2003, [25]	58	M	MI	LAD, CX, RCA	Yes, 45	No	<10	III	N.D.	VTE, IS
§Larsen et al, 2010, [26]	36	M	MI		No	No	23 (free PS)	III	p.Thr673fsX10 (HeZ)	MI, VTE
Wagh et al, 2012, [27]	48	M	IS	MCA	Yes, 48	No	28	N.D.	N.D.	N.D.
§Wypasek et al, 2013, [28]	44	M	MI, IS	RCA	Yes, 42	HT, Hchol	32 (free PS)	III	p.Ser501Pro (Heerlen) (HeZ)	CAD

§Wang et al, 2015, [29]	50	M	IS	N.D.	No	No	37	I	p.Asp496* (HeZ)	IS
Klincheva et al, 2016, [30]	19	M	MI	RCA	No	FII20210A HeZ	10	N.D.	N.D.	CAD
Protein C and S deficiency										
Cakir et al, 2002, [31]	25	F	MI	LAD	Yes, 25	No	63 (PS), 26 (PS)	N.D.	N.D.	N.D.
Acar et al, 2006, [32]	33	F	MI	LAD	No	No	19 (PC), 50 (PS)	N.D.	N.D.	N.D.
Sayin et al, 2012, [33]	37	M	MI	LM	No	Smoking	49 (PC), 37 (PS)	N.D.	N.D.	No
Patel et al, 2013, [34]	25	M	IS	MCA	No	No	38 (PC), 20 (PS)	N.D.	N.D.	No
<p>Age is the age of the index patient at first presentation of MI or IS. †, pregnancy complications (ie. miscarriage, fetal death) were also registered; *, at the time of VTE the patient was on fibrinogen replacement due to afibrinogenaemia; §, deficiency of AT, PC or PS was confirmed by genetic testing, or blood sampling for laboratory tests of AT, PC and PS was executed at least six weeks after the acute thrombotic event Abbreviations: M, male; F, female; PAD, peripheral arterial disease; ACA, anterior cerebral artery; MCA, medial cerebral artery; LAD, left anterior descending artery; CX, circumflex coronary artery; RCA, right coronary artery; LM, left main coronary; CAD, coronary artery disease; HeZ, heterozygote; HoZ, homozygote; Hchol, hypercholesterolaemia; HHcy, hyperhomocysteinaemia; OAC, oral anticoncipient; HT, hypertension; N.D., no data</p>										

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