

Supplementary Table 5. Phenotypic data for HDCT Patients.

Patient ID	Age	Sex	Beighton score	cEDS	vEDS	hEDS	kEDS	Other features	Vascular Complications	Family History
				Major criteria Minor criteria	Major criteria Minor criteria	Major criteria Minor criteria	Major criteria Minor criteria			
33	40-49	F	9	A, C a, d, f	E n	H, I s, u	J w, x, y	–	Carotid artery dissection	Son: GJH Father: GJH Paternal grandmother: GJH Maternal aunt: Cerebral Hemorrhage
34	30-39	F	3	A, C, d, i	E	H, I	– –	–	Carotid dissection	Mother: HS Maternal grandfather: HS Father: HV Paternal grandmother: HV, GJH
35	30-39	F	–	B, C a, f	D, E k, n, r	H –	– –	IF	–	Mother: peizogenic papules Maternal grandfather: peizogenic papules, Cerebral Hemorrhage
45	50-59	F	5	C –	E –	H u	– –	Pectus, Kyph	Carotid artery dissection	Mother: GJH Brother: GJH 2 children: GJH
60	40-49	M	0	A –	E –	I u	– –	–	Carotid artery dissection	Son: GJH
72	50-59	M	–	A, C	E j, r	– –	– –	PP, Str Aplasia/Hypoplasia of fingers	–	Brother: HTAD Father: AAA (in his late 90s) Mother: HTAD (in her early 70s)
73	10-19	M	5	A, C f	D, j, r	H, I u	J w, bb	–	Carotid artery stenosis	
79	40-49	M	7	– e, i	– –	– –	– –	PGMW, OP, HV	Aneurysm	Father: GJH Paternal grandmother: GJH
99	60-69	M	0	A a, d	E	I	– –	Bru, Kyph	Carotid artery dissection	–
422	0-9	F	6	C f	D, F r	H, I u	J –	–	–	Mother: GJH Father: Str Brother 1: JHM, Camp Brother 2: JHM, Camp, TS, Bru, Inguinal hernia Paternal grandfather: AAA
423	0-9	M	8	A, C a, d	q, r	H, I u	J v, bb	–	–	Mother: GJH Father: Str Sister: GJH, TS, AoR, Camp Brother: GJH, Camp, Bru, Inguinal hernia Paternal grandfather: Aortic aneurysm; TS
446	40-49	M	4	A, C d, i	E f	I u	– –	–	Carotid artery dissection	Daughter 1: GJH Daughter 2: GJH
453	40-49	F	4	C a	E	– –	– –	OP	Carotid artery dissection	Mother: Bru
474	60-69	F	0	– d, f	D, E n	– –	– –	Triangular face, Microretrognathia, High-	Epidural haemorrhage, VV	–
479	20-29	F	6	A, C e, f, g	– –	H, I t	J, K w	PGMW	–	Mother: POA Maternal grandmother: MVR Maternal great-grandmother: Cerebral Hemorrhage

505	10-19	F	-	- g, i	-	H u	-	Non-epidermolytic palmoplantar keratoderma	-	<b>Mother:</b> hEDS, PGMW <b>Maternal grandmother,</b> <b>Maternal aunt 1:</b> PGMW <b>Maternal aunt 2:</b> PGMW, VV <b>Maternal aunt's 2 children,</b> GJH
526	50-59	F	7	C a, d	-	H, I -	-	Lumbar scoliosis, Spondylolithesis, HV, Inflammatory arthropathy	-	<b>Daughter:</b> GJH, MVP <b>Maternal grandmother:</b> Abnormal heart valve <b>Maternal cousin:</b> urinary incontinence <b>Sister's daughter:</b> Urinary incontinence, GJH
531	60-69	F	-	C i	-	-	-	-	-	<b>Father:</b> GJH, Non-epidermolytic palmoplantar keratoderma <b>Sister</b> GJH, Non-epidermolytic palmoplantar keratoderma, Dissecting aortic aneurysm <b>Daughter:</b> Non-epidermolytic palmoplantar keratoderma <b>Maternal grandmother:</b> GJH
532	40-49	M	2	-	E	-	-	-	HTAD	-
538	30-39	F	8	C a, d	-	H, I s, t, u,	-	FLNA de novo mutn	HTAD	<b>Mother:</b> GJH <b>Sister (pt 560):</b> GJH
564	20-29	M	8	A, C a, d, g	-	H, I u	-	-	AoR	<b>Father:</b> hypertrophic obstructive cardiomyopathy <b>Mother:</b> GJH <b>Brother:</b> hypertrophic obstructive cardiomyopathy
567	50-59	M	4	B	E	I	-	OP	Aneurysm; (ilio femoral artery)	-
620	20-29	F	5	C a, d, e, f, i	-	H, I s, t, u	J, K w, y, bb	Sco, High-arched palate;	-	<b>Mother:</b> GJH <b>Brother:</b> Occipital horn syndrome, GJH, Kyph
635	40-49	F	7	C a, i	-	H, I u	-	Kyph, CHD, High-arched palate	-	<b>Daughter:</b> GJH, Spastic diplegia Bru, TS <b>Son:</b> GJH, Bru
651	20-29	F	-	C d	D n, r	H, I u	-	-	VV	<b>Mother:</b> Carotid artery aneurysm; VV, TS, GJH
707	10-19	M	1	- a, d, e	- i	I s, t, u	-	Poa	AoR	<b>Sister:</b> GJH, SS <b>grandmother:</b> GJH <b>Paternal aunt:</b> GJH <b>Paternal grandmother:</b> Bru
768	50-59	M	3	C	E	-	-	Micrognathia, High-arched palate; Kyp, PP	Aortic dissection, (infrarenal), Aneurysm	-
777	20-29	F	7	C	D r	- t, u	-	OP	-	<b>Mother:</b> Cerebral aneurysm <b>Maternal great-grandmother:</b> Cerebral aneurysm
800	60-69	F	8	C d, g	E n	H	-	PE, Hypodontia	-	-

810	10-19	M	8	A, C d, i	D n	H, I s, u	J, K y, aa	HV	–	<b>Mother:</b> GJH <b>Father:</b> GJH <b>Brother:</b> GJH <b>Brother's daughters:</b> GJH
814	30-39	F	8	B, C d	D n, r	H s, t, u	J v	PP, HP, PGMW, HD	–	<b>Father:</b> Pectus carinatum, GJH <b>Paternal grandmother:</b> GJH <b>Mother:</b> GJH <b>Maternal aunt:</b> GJH <b>Sister 1:</b> HTAD <b>Sister 2:</b> GJH, TS, Bru, Sco
1387	50-59	M	–	A –	E –	I –	– –	OP	–	<b>Mother:</b> Cerebral Haemorrhage, Fibromuscular dysplasia
1394	20-29	M	4	A, B, C g, i	– m	H, I u	– –	Talipes Increased armspan to height ratio	–	<b>Mother:</b> hEDS <b>Father:</b> GJH, TS  <b>Sister:</b> GJH, SS <b>Maternal grandmother:</b> GJH <b>Maternal grandfather:</b> GJH
1420	0-9	M	–	C d	– –	H s, t	– –	–	–	–
1503	0-9	F	8	C e, f	D r	H t, u	– –	–	–	<b>Mother:</b> GJH, SS <b>Maternal grandmother:</b> GJH, Subarachnoid haemorrhage <b>Maternal uncle:</b> GJH <b>Brother:</b> GJH
1504	40-49	F	–	C a, f	D, F n	H, I u	– –	–	–	<b>Sister:</b> GJH <b>Children:</b> GJH
1625	60-69	F	–	– g	– r	– t	– –	–	AoR	–
1688	30-39	F	6	C d, f	E g	H, I s, t, u	– –	–	Subarachnoid haemorrhage	<b>Brother:</b> hEDS
1744	30-39	F	7	– d	– –	– –	– –	Osteochondriti s dessicans of ankles	–	<b>Father:</b> GJH <b>Mother,</b> <b>Maternal grandmother:</b> SaH

EDS Diagnostic Criteria and Abbreviations as per lists in Supplementary Table 1.