

Supplementary Table 1. Phenotypic data for cEDS Patients.

Patient ID	Age	Sex	Beighton Score	cEDS Major criteria Minor criteria	vEDS Major criteria Minor criteria	hEDS Major criteria Minor criteria	kEDS Major criteria Minor criteria	Vascular/cardiac complications	Family History
75	30-39	F	8	A, C d, i	– n, q	H, I t, u	–	VV	Father: GJH 2 Sisters: GJH
136	60-69	F	–	A, C a, i	–	H, I u	–	–	Daughter, Grandson: cEDS
383	20-29	F	7	A, C d, i	– r	H, I s, u	–	–	Mother: GJH, SCAD Maternal grandmother: GJH Sister: MVP Others: ICA.
396	50-59	F	–	A, C a	–	H, I u	J	Aneurysm (subclavian artery)	Daughter: GJH, MVP
409	40-49	F	–	A, C d, e	–	H, I u	–	AoR	Son: GJH, Dev delay, AoR, Daughter: AoR
431	30-39	F	7	C, d, g, i	D q	H u	J	–	Mother: GJH
534	30-39	F	9	A, B, C f, g, i	F	H, I u	–	–	Father: JHM Mother: GJH Children: GJH
583	10-19	F	8	A, B, C d, f, g, i	–	H, I s, t, u	J	–	Father, Sister, Paternal uncle Paternal grandmother: cEDS
595	30-39	M	6	A, C a, d, g	– k, q	H, I	–	MVR	Father: TS Mother: Keratoconus Sister: Ischemic stroke
611	30-39	M	7	A, C l	–	H, I u	–	–	Daughter: hEDS
653	20-29	F	9	A, C a, e, i	–	H, I s, t, u	–	–	Mother, Brother Maternal aunt, Maternal cousin : GJH
717	20-29	F	8	A, C a, d, f	–	H, I u	–	–	Father: GJH
718	30-39	F	5	C a, d	D, G	H, I u	–	–	Father: 3 paternal aunts: Brother SVT. Mother: GJH Children: GJH
803	20-29	F	8	A, C d	–	H, I s, u	J	–	Son: GJH
806	10-19	M	–	B, C e, i	–	H u	J	–	Mother: GJH, Brother: GJH
1002	50-59	F	7	A, C d, i	–	H, I s, u	–	–	Mother: mitochondrial myopathy Father: GJH
1365	20-29	F	9	A, B, C d, f, i	– k, r	H, I s, u	–	–	Mother: GJH Father: GJH, HS
1451	10-19	F	9	A, C d, g, i	–	H, I t	–	–	Father: TS, Bru, AAA, NOS, AoR, classical EDS phenotype with cauliflower fibres on EM; Paternal grandmother: TS, Bru Paternal Great grandfather: TS, Bru, AAA
1524	50-59	F	3	C d, e, f, g	D r	H, I	–	–	Mother: GJH, intestinal rupture
1528	30-39	M	–	A, C d, f, g	– k, q	H, I s, u	–	–	Son: Fragile skin, GJH

Key: EDS Diagnostic Criteria (Villefranche 1997)

cEDS Major: A. Hyperextensible skin; B. Atrophic scars; C. Joint Hypermobility.

cEDS Minor: a. Smooth, velvety skin; b. Molluscoid pseudotumors; c. Subcutaneous spheroids; d. Complications of joint hypermobility (e.g., sprains, dislocations/subluxations, pes planus); e. Muscle hypotonia, Delayed gross motor development; f. Easy bruising; g. Manifestations of tissue extensibility and fragility (e.g., hiatal hernia, anal prolapse in childhood, cervical insufficiency); h. Surgical complications (postoperative hemias); i. Positive family history.

vEDS Major: D. Thin translucent skin; E. Intestinal/ Arterial/ Uterine fragility and/or rupture; F. Extensive bruising; G. Characteristic Facial appearance.

vEDS Minor: j. Acrogeria; k. Hypermobility of small joints; l. Tendon and muscle rupture; m. Talipes equinovarus (clubfoot); n. Early-onset varicose veins; o. Arteriovenous, carotid-cavernous sinus fistula; Positive family history, sudden death in (a) close relative(s); p. Pneumothorax/pneumohemothorax; q. Gingival recession; r.

hEDS Major: H. Generalised Joint Hypermobility; I. skin involvement.

hEDS Minor: s. Recurring joint dislocations; t. Chronic joint/limb pain; u. Positive family history.

kEDS Major: J. GJH; K. Severe muscle hypotonia at birth; L. Scoliosis at birth progressive; M. Scleral fragility and rupture of the ocular globe.

kEDS Minor: v. Tissue fragility, including atrophic scars; w. Easy bruising; x. Arterial rupture; y. Marfanoid habitus; z. Microcornea; aa. Radiologically considerable osteopenia; bb. Family history, i.e., affected sibs.

Abbreviations (alphabetical order): Abdominal Aortic aneurysm (AAA), Aortic aneurysm – NOS (AA-NOS), Aortic root dilatation (AoR), Blue sclera (BS), Bruising (Bru), Camptodactyly (Camp), Congenital bilateral hip dislocation (CHD), Constipation (Con), Deafness (D), Disproportionate Tall stature (TS), Fatigue (Ftg), Gastroesophageal reflux (GORD), Hallux valgus (HV), Hip dysplasia (HD), Hyperextensible skin (HS), Intracranial aneurysm (ICA), Kyphosis (Kyph), Mitral Valve Prolapse (MVP), Mitral Valve Regurgitation (MVR), Myopia (My), Osteopenia (OP), Pectus excavatum (PE), Pelvic girdle muscle weakness (PGMW), Periodontitis (Pd), Pes planus (PP), Premature osteoarthritis (Poa), Retinal Detachment (RD), Scoliosis (Sco), Soft velvety skin (SS), Striae (Str), Thin Skin (TS), Thoracic Aortic aneurysm (TAA), Urinary incontinence (UI), Joint Hypermobility (JHM), Varicose veins (VV)