

Supplementary material 2 – Demographic data and attributed causes of all cases of SD

Case	Gender	Age	Attributed cause of SD	Additional features
1	M	24	Atherosclerotic CAD (type 1 MI)	Histological MI, 3-vessel disease with multiple epicardial and intramyocardial coronary thrombosis/embolization
2	M	36	Atherosclerotic CAD (type 2)	2-vessel disease (50-75%), LV dilation
3	M	40	Atherosclerotic CAD (type 2 MI)	1-vessel disease (>75%), mild LV dilation
4	F	34	Atherosclerotic CAD (type 2)	1-vessel disease (50-75%), histological MI as well as myocardial fibrose and scar in the myocardium affected by the affected artery
5	M	38	Atherosclerotic CAD (type 2 MI)	3-vessel disease (>75%), LVH, myxomatous mitral valve disease
6	M	38	Atherosclerotic CAD (type 1 MI)	Histological MI, 1-vessel disease
7	M	37	Atherosclerotic CAD (type 1)	3-vessel disease, LV dilation
8	M	34	Atherosclerotic CAD (type 2 MI)	1-vessel disease, LVH
9	M	31	Atherosclerotic CAD (type 2 MI)	2-vessel disease (>90% and >75%), LVH, VD and RA dilation
10	F	38	Atherosclerotic CAD (type 1 MI)	3-vessel disease, LVH and LV dilation, with interstitial and replacement-type myocardial fibrosis; pulmonary edema (70%)
11	F	28	Atherosclerotic CAD (type 2 MI)	3-vessel disease, mild degenerative mitral valve disease; significant heart autolysis
12	M	35	Atherosclerotic CAD (type 1 MI)	Histological MI, 1-vessel disease; chronic steatohepatitis
13	M	39	Atherosclerotic CAD (type 1 MI)	1-vessel disease, LVH, with interstitial and replacement-type myocardial fibrosis
14	M	30	Atherosclerotic CAD (type 1 MI)	2-vessel disease, LVH
15	M	30	Atherosclerotic CAD (MI with wall rupture and hemopericardium)	No anatomopathologic report available
16	M	39	Atherosclerotic CAD (type 1)	3-vessel disease, LVH
17	M	34	Atherosclerotic CAD (type 1 MI)	Histological MI, 1-vessel disease; pulmonary edema (60%)
18	M	36	Atherosclerotic CAD (type 1 MI)	1-vessel disease, LVH, LV dilation, interstitial and replacement-type myocardial fibrosis
19	M	39	Atherosclerotic CAD (type 2 MI)	Histological MI, 1-vessel disease (>90%)
20	M	36	Atherosclerotic CAD (type 2)	1-vessel disease (>75%), LVH
21	M	29	Atherosclerotic CAD (type 2 MI)	2-vessel disease (>75%)
22	F	40	Atherosclerotic CAD (type 1 MI)	1-vessel disease; pulmonary edema (20%); hepatic steatosis
23	M	40	Atherosclerotic CAD (type 1)	1-vessel disease
24	M	36	Atherosclerotic CAD (type 2)	1-vessel disease (75-90%), large area of histological MI, as well as multiple myocardial scars
25	M	28	Atherosclerotic CAD (type 1 MI)	2-vessel disease, LVH, interstitial myocardial fibrosis and extensive area of replacement-type fibrosis with associated LV thrombus
26	M	31	Atherosclerotic CAD (type 2 MI)	3-vessel disease (50-75%), LVH
27	F	30	Atherosclerotic CAD (type 1 MI)	3-vessel disease, LVH; pulmonary edema (20%)
28	M	30	Atherosclerotic CAD (type 2 MI)	3-vessel disease (>75%), LV dilation
29	M	35	Atherosclerotic CAD (type 2 MI)	2-vessel disease (>75%)
30	M	36	Atherosclerotic CAD (type 2 MI)	1-vessel disease (50-75%), LV mild dilation
31	M	39	Atherosclerotic CAD	Histological MI, LV dilation; coronary arteries not sent for anatomopathological analysis
32	M	28	Atherosclerotic CAD (type 1)	2-vessel disease, LVH and evolution towards dilation
33	F	37	Atherosclerotic CAD (type 2 MI)	1-vessel disease (50-75%), LVH; adrenal cortical nodular hyperplasia
34	M	27	Atherosclerotic CAD (type 2 MI)	2-vessel disease (>75%), LV dilation, mild myxomatous mitral valve disease
35	M	32	Atherosclerotic CAD (type 2 MI)	LVH; persistent left superior vena cava draining into the coronary sinus
36	M	38	Atherosclerotic CAD (type 2 MI)	3-vessel disease (50-75%), LV dilation
37	M	40	Atherosclerotic CAD (type 1 MI)	Histological MI, 3-vessel disease, LVH, with myocardial scar
38	M	36	LVH and interstitial fibrosis	Mild RV dilation
39	M	24	LVH with interstitial and replacement-type myocardial fibrosis	Extensive anterolateral scar with compensatory hypertrophy, RV dilation, small caliber left coronary arteries
40	M	29	LVH	Associated myxomatous mitral valve disease

41	M	39	LVH with evolution towards dilation	Diffuse glomerulosclerosis and focal lamellar sclerosis suggestive of diabetic and/or hypertensive nephropathy
42	M	37	LVH with evolution towards dilation	RV hypertrophy and dilation
43	F	39	LVH and interstitial fibrosis	Non-significant CAD
44	F	11	LVH with interstitial and replacement-type myocardial fibrosis	Extensive area of myocardial scar; BALT hyperplasia, probably secondary to previous myocarditis.
45	M	34	LVH with evolution towards dilation	
46	M	31	LVH with evolution towards dilation	Non-significant CAD, acute pulmonary edema (70%) and generalized vascular congestion; Hypertensive glomerular arteriosclerosis
47	M	34	LVH	No anatomopathologic report available
48	M	33	LVH	Non-significant CAD, right chamber dilation with posterior RA sacular aneurysm; hepatic steatosis
49	F	39	LVH with evolution towards dilation	Hepatic steatosis
50	M	29	LVH	Non-significant CAD; heart autolysis and deformation
51	M	37	LVH with evolution towards dilation	RV hypertrophy, acute pulmonary edema (25%)
52	M	23	LVH with evolution towards dilation	Biventricular hypertrophy; Non-significant CAD; adrenal cortical adenoma
53	F	40	LVH with evolution towards dilation	Non-significant CAD
54	M	40	LVH	Patent foramen <i>ovale</i>
55	M	13	HCM	Heart weight: 220g, left ventricular free wall thickness of 13-16mm. Myocyte disarray. Pathogenic MYBPC3 gene mutation.
56	M	30	Obstructive HCM	No anatomopathologic report available
57	M	14	Obstructive HCM	Heart weight: 740g, interventricular septum thickness of 35mm. Myocyte disarray. Two pathogenic MYBPC3 gene mutations: <i>antemortem</i> diagnosis of father-inherited mutation and <i>postmortem</i> diagnosis of mother-inherited mutation. Toxicology: atenolol in the therapeutic range.
58	M	25	Acute pulmonary embolism	
59	M	37	Acute pulmonary embolism	
60	F	40	Acute pulmonary embolism	Inferior limb deep venous thrombosis
61	F	32	Acute pulmonary embolism	Inferior limb deep venous thrombosis
62	F	21	Acute pulmonary embolism	
63	F	34	Acute pulmonary embolism	
64	F	39	Acute pulmonary embolism	Inferior limb deep venous thrombosis
65	F	40	Acute pulmonary embolism	Inferior limb deep venous thrombosis; RV dilation; Bilateral pleural effusion; Acute salpingitis
66	F	32	Acute pulmonary embolism	Inferior limb deep venous thrombosis
67	F	36	Acute pulmonary embolism	Inferior limb deep venous thrombosis
68	M	32	Acute pulmonary embolism	Inferior limb deep venous thrombosis
69	F	27	Acute pulmonary embolism	Invasive colic adenocarcinoma (stage T4N3M1)
70	F	30	Acute pulmonary embolism	Inferior limb deep venous thrombosis
71	F	36	Acute pulmonary embolism	Inferior limb deep venous thrombosis
72	M	18	LV dilation - possibly post-myocarditis	Heart weight: 440g. Associated chronic portal plus interface hepatitis, and BALT hyperplasia raising the hypothesis of subacute myocarditis due to a viral infection or auto-immune disease
73	F	33	LV dilation	Mild to moderate interstitial fibrosis
74	F	37	LV dilation - possible post-partum (3 months) cardiomyopathy	Hepatic steatosis (> 85%), with diminished hepatic reserve
75	F	37	LV dilation - possible ethanolic cardiomyopathy	Heart weight: 410g. Steatohepatitis and hepatomegaly; Chronic interstitial nephritis; Prior history of chronic alcoholism
76	M	35	LV dilation	
77	F	17	LV dilation - possible post-partum (4 months) cardiomyopathy	
78	M	36	LV dilation	Heart weight: 170g. Excentric atherosclerotic lesions (~50%)
79	M	27	LV dilation	Heart weight: 400g.
80	M	36	Ischemic heart disease	Heart weight: 700g. Complicated with acute pulmonary edema (80%)

81	M	35	LV dilation - possible ethanolic cardiomyopathy	Pulmonary edema (80-90%); prior history of chronic alcoholism and drug dependence
82	F	31	Myxomatous mitral valve disease - mitral valve prolapse	Mild LV hypertrophy and dilation
83	M	39	Severe aortic stenosis	No anatomopathological evaluation requested
84	M	30	Myxomatous mitral valve disease	Mitral valve leaflets ballooning and myxomatous degeneration; LVH, peri-valvular basal ventricular interstitial fibrosis
85	M	36	Myxomatous mitral and tricuspid valve disease	LVH, RV and bi-atrial dilation; patent foramen ovale
86	M	39	Severe aortic stenosis	Significant heart autolysis. Aortic valve with degenerative changes and coarse calcifications.
87	F	38	Myxomatous mitral valve disease - mitral valve prolapse	
88	M	40	Degenerative mitral valve disease	Mitral valve leaflet ballooning and severe thickening, calcification of one tendinous chordae; LVH and LV and LA dilation
89	M	23	Acute myocarditis	Acute pericarditis
90	M	5	Acute myocarditis	Neutrophilic infiltrate suggesting bacterial etiology; BALT hyperplasia
91	M	15	Acute myocarditis	Mild LV dilation and interstitial myocardial fibrosis; mononuclear cells infiltrate suggesting viral etiology
92	F	23	Acute myocarditis	Small foci of myocardial scar; myocarditis with associated peri-coronary inflammation with eosinophil-rich mixed cellular tissue infiltrates
93	M	36	Acute myocarditis	Myocarditis with associated pneumonia with neutrophilic infiltrates suggestion bacterial etiology
94	F	40	Acute Heart Failure	Acute pulmonary edema (85%), generalized vascular congestion, mild RV dilation
95	M	38	Acute Heart Failure	Acute pulmonary edema (80%), generalized vascular congestion; Chronic hepatitis
96	M	28	Acute Heart Failure	Acute pulmonary edema (80%), generalized vascular congestion; Diffuse microvesicular hepatic steatosis
97	F	29	Acute Heart Failure	Acute pulmonary edema (90%), generalized vascular congestion
98	M	33	Acute Heart Failure	Acute pulmonary edema (55%)
99	M	17	DeBakey type II aortic dissection and pericardial tamponade	Originating in a pre-coarctation aneurysm with chronic peri-aortic inflammation; bicuspid aortic valve; peri-coronary inflammation; biventricular hypertrophy.
100	M	32	DeBakey type I aortic dissection and pericardial tamponade	Ascending aorta sacular aneurysm, aortic atherosclerosis and media degeneration with acid mucopolysaccharide deposition; cardiopathy with biventricular hypertrophy; 1-vessel significant disease (50-75%)
101	M	36	DeBakey type II aortic dissection and pericardial tamponade	Associated acute pulmonary root dissection; significant heart autolysis
102	M	38	DeBakey type I aortic dissection and pericardial tamponade	LV dilation, non-significant CAD
103	M	26	DeBakey type II aortic dissection and pericardial tamponade	Aneurysm from the ascending to the thoracic descending aorta, with acute intra-aneurysmal thrombosis; Non-significant CAD; pulmonary edema (80%)
104	M	27	Congenital Heart Disease	No anatomopathological evaluation requested
105	F	36	Corrected Congenital Heart Disease	Bicuspid pulmonary valve and sub- and supra-valvular stenosis corrected with a pulmonary trunk patch; cardiopathy with biventricular hypertrophy, interstitial and replacement-type fibrosis, tricuspid annulus dilation.
106	M	31	Corrected Congenital Heart Disease	Pulmonary valve with dysplastic cusps and a calcified patch in the RV outflow tract; cardiopathy with biventricular dilation, hypertrophy, interstitial and replacement-type fibrosis involving predominantly the RV; Pulmonary edema (35%)
107	M	32	Congenital Heart Disease	LVH and LV dilation, tendinous chordae with anomalous insertion into the interventricular septum conditioning mitral valve leaflet restriction; pulmonary edema (85%)

108	M	37	Congenital Heart Disease	Pulmonary artery agenesis, interatrial communication, persistent left superior vena cava draining into aneurysmatic coronary sinus, left atrial and mitral valve hypoplasia
109	F	35	Left ventricular interstitial fibrosis	Myocardial scars; Non-significant CAD; Pulmonary edema (40%)
110	M	40	Left ventricular interstitial fibrosis	Mild and multifocal interstitial fibrosis; mixed diffuse hepatic steatosis; chronic gastritis
111	F	30	ARVC	Severe RV dilation, fat replacement in the RV apex, outflow and inflow tract and focal LV involvement
112	M	24	Acute left main coronary artery dissection	Originating from medial tunica degeneration of the ascending aorta; Mitral valve myxomatous thickening and ballooning, thin and elongated tendinous chordae – suggesting a hereditary Marfan Syndrome
113	M	21	Acute bronchopneumonia	
114	M	20	Acute lobar pneumonia	
115	M	20	Acute bronchopneumonia	
116	M	24	Acute bronchopneumonia	LV dilation; Portal chronic hepatitis
117	M	25	Acute lobar pneumonia	
118	M	19	Acute bronchopneumonia	Hepatic macrovesicular steatosis
119	M	27	Acute lobar pneumonia	
120	M	36	Acute lobar pneumonia	
121	M	39	Acute bronchopneumonia	
122	M	39	Acute bronchopneumonia	
123	M	40	Acute lobar pneumonia	
124	M	40	Acute purulent bronchitis	LVH with evolution towards dilation
125	M	24	Acute purulent bronchitis	LVH with evolution towards dilation
126	M	34	Acute panlobar pneumonia	Kidney abscess
127	M	38	Acute bronchopneumonia	LVH, 1-vessel disease (>75%)
128	M	37	Acute lobar pneumonia	
129	M	33	Acute laryngitis	LVH with evolution towards dilation, non-significant CAD; Mixed hepatic cirrhosis with signs of activity
130	M	15	Acute severe amygdalitis with prominent lymphoid follicular hyperplasia	LVH, anomalous tendinous chordae; Splenic follicular hyperplasia
131	M	29	Acute alveolar hemorrhage	Non-significant CAD
132	M	30	Acute alveolar hemorrhage	
133	M	39	Acute alveolar hemorrhage	
134	M	30	Acute diffuse alveolar disease	
135	M	24	Acute diffuse alveolar disease	LVH; portal chronic hepatitis
136	M	33	Acute diffuse alveolar disease	
137	M	13	Acute pulmonary edema in the context of Still's Disease	Prior history of idiopathic juvenile systemic arteritis
138	M	38	Acute pulmonary thrombosis in the context of sickle cell anemia crisis	Prior history of Sickle Cell Anemia
139	M	38	Hemorrhagic stroke	Secondary to spontaneous basilar artery rupture
140	F	40	Hemorrhagic stroke	
141	M	39	Hemorrhagic stroke	
142	M	28	Hemorrhagic stroke	Secondary to aneurysm rupture
143	M	23	Generalized tonic-clonic seizure	
144	F	37	Generalized tonic-clonic seizure	Prior diagnosis of epilepsy
145	M	37	Generalized tonic-clonic seizure	Prior diagnosis of epilepsy
146	F	40	Generalized tonic-clonic seizure	Prior diagnosis of Ramsay-Hunt Syndrome
147	M	38	Subarachnoid hemorrhage	
148	F	39	Subarachnoid hemorrhage	Acute pulmonary edema
149	M	30	Acute meningitis	
150	F	30	Brain ventriculitis and acute cervical medullary hemorrhage	Colloid cyst in the third cerebral ventricle; Patent foramen ovale; right coronary artery with two ostia; coronary arteries with diminished caliber
151	F	35	Acute peritonitis secondary to intestinal perforation	
152	M	40	Acute peritonitis secondary to gastric ulcer perforation	Prior history of drug abuse and hepatitis C viral infection

153	F	39	Acute peritonitis secondary to gastric ulcer perforation	
154	F	26	Gastric hemorrhage	Mild LVH, non-significant CAD
155	F	31	Granulomatous necrotizing hepatitis	Mild myxomatous mitral valve disease; Mild vascular congestion
156	M	40	Lymphoproliferative disease	
157	F	36	Intravascular disseminated coagulation secondary to severe sepsis to Streptococcus suis	Pleural, pericardial and peritoneal hematic effusion; Oral mucosal bleeding
158	F	39	Ulcerated infected uterine cervix carcinoma	
159	M	35	Severe hypoglycemia in the context of insulin-treated DM	Severe hypoglycemia measures by pre-hospital team; Prior history of severe hypoglycemia episodes

Legend: ARVC – Arrhythmogenic Right Ventricle Cardiomyopathy, BALT – bronchus-associated lymphoid tissue, CAD – coronary artery disease, HCM – Hypertrophic Cardiomyopathy, LA – left atrium, LV – left ventricle, LVH – Left Ventricular Hypertrophy, MI – Myocardial Infarction, MYBPC3 – Myosin Binding Protein C3, RA – right atrium, RV – right ventricle