

**Supplementary Table 1.** Age, gender, breed, VSD type and other cardiac findings, history of exercise, follow-up and clinical signs associated with isolated ventricular septal defect cases. AR: aortic regurgitation; Arab: Arabian horse; D: Died; E: Euthanized; G: gelding; inf: infundibular; HD: holodiastolic; HS: holosystolic; m: months M: Mare; musc: muscular; NA: not available; PS: pansystolic; pm: perimembranous; S: stallion; Sx: clinical signs; Thb: Thoroughbred; VSD: ventricular septal defect; Vmax: maximal VSD shunt velocity (m/s); Wbl: warmblood; y: years; +: present; -: absent; <sup>a</sup>: simultaneous presence of a chordae tendineae rupture; <sup>b</sup>: simultaneous presence of an aortic valve tear.

Horse	Age	Gender	Breed	VSD type	VSD Diameter (cm)	Vmax (m/s)	Aortic valve prolapse	Acquired AR	Murmur type (grade)		Exercise before diagnosis	Sx	Follow up
									Left side	Right side			
1	7 y	G	Wbl	pm	2.35	6.18	+	mild	HS (4/6)	HS (4/6)	+	-	Sport
2	8 y	G	Welsh	pm	1.70	4.93	-	-	HS (3/6)	PS (4/6)	+	-	Rest
3	18 y	M	Welsh	pm	1.95	5.11	+	-	HS (4/6)	PS (4/6)	+	-	Sport
4	4 y	M	Wbl	pm	2.00	6.06	+	mild	HS (4/6) HD (2/6)	HS (5/6)	+	-	NA
5	4 y	S	Draft	pm	2.35	NA	+	mild	HS (4/6)	PS (5/6)	-	-	NA
6	7 y	S	Lusitano	pm	2.10	4.99	-	trace	HS (4/6)	PS (5/6)	+	-	Sport
7	5 y	S	Wbl	pm	2.25	5.41	-	moderate	PS (4/6)	PS (5/6)	+	-	E
8	14 y	G	Wbl	pm	3.60	4.19	+	mild	HS (4/6)	PS (5/6)	-	+	Sport
9	5 y	G	Wbl	musc	1.05	4.18	-	-	HS (4/6)	PS (4/6)	+	-	E
10	8 y	M	Wbl	pm	3.20	5.12	+	severe	HS (4/6)	PS (5/6)	+	-	NA
11	8 y	M	Wbl	pm	1.95	3.71	-	-	HS (3/6)	HS (1/6)	+	-	E
12	1 m	M	Wbl	pm	0.77	6	-	mild	HS (1/6)	HS (4/6)	-	-	E
13	5 y	M	Wbl	pm	2.65	3.98	-	-	HS (5/6)	PS (5/6)	+	+	E
14	15 y	M	Thb	pm	3.90	4.81	+	mild	HS (4/6) HD (2/6)	PS (5/6)	+	-	Sport

15	11 y	G	Wbl	pm	1.85	6.04	-	-	HS (4/6)	PS (4/6)	+	-	Sport
16	7 y	G	Pony	pm	1.60	5.62	-	mild	HS (4/6)	PS (5/6)	+	-	NA
17	3 m	S	Arab	pm	1.80	6.25	+	mild	PS (5/6)	PS (5/6)	+	-	D
18	8 y	M	Wbl	pm	2.20	4.17	-	moderate	PS (5/6)	HS (4/6)	+	-	Rest
19	6 y	M	Wbl	pm	3.05	4.82	+	mild	HS (3/6)	PS (3/6)	+	-	E
20	3 y	S	Draft	pm	3.80	5.23	+	severe	HS (4/6)	PS (5/6)	+	-	NA
21	4 m	S	Wbl	pm	1.60	3.38	+	mild	HS (5/6)	PS (5/6)	-	+ <sup>a</sup>	Sport
22	5 y	G	Wbl	pm	4.00	5.20	+	moderate	HS (4/6)	PS (5/6)	+	-	Sport
23	11 y	G	Pony	musc	0.90	6.15	-	-	HS (4/6)	PS (4/6)	+	-	E
24	5 y	M	Pony	inf	NA	NA	+	moderate	HS (4/6) HD (3/6)	PS (4/6)	+	+ <sup>b</sup>	E
25	7 m	S	Wbl	pm	1.20	4.2	-	mild	HS (3/6)	PS (4/6)	-	-	NA
26	6 y	G	Pony	inf	3.60	4.23	+	severe	HS (3/6) HD (4/6)	HS (3/6) HD (4/6)	+	-	Sport
27	7 y	G	Wbl	pm	2.50	5.05	+	-	HS (4/6)	PS (5/6)	+	-	NA
28	4 y	S	Draft	pm	2.05	5.44	+	mild	PS (4/6)	PS (5/6)	-	-	E
29	9 m	M	Wbl	pm	3.10	2.78	-	-	HS (4/6)	PS (5/6)	-	+	E
30	26 y	G	Wbl	pm	1.50	5.40	+	mild	HS (3/6)	PS (5/6)	+	-	Sport
31	6 y	S	Wbl	pm	2.20	5.05	-	-	HS (3/6)	PS (5/6)	+	-	Sport
32	6 y	S	Wbl	pm	2.90	5.32	+	-	HS (4/6)	PS (4/6)	+	-	NA
33	3 y	S	Draft	pm	1.35	4.30	-	trace	HS (4/6)	PS (5/6)	+	-	NA
34	5 y	M	Pony	pm	1.35	5.02	+	-	NA	NA	+	-	NA
35	7 y	S	Wbl	pm	3.90	5.78	+	severe	PS (4/6)	PS (4/6)	+	-	NA
36	2 y	S	Wbl	pm	2.10	5.50	+	mild	NA	NA	-	-	E
37	2 y	S	Wbl	pm	3.05	4.54	+	severe	PS (5/6) PD (5/6)	HS (5/6)	-	+	E
38	3 y	G	Wbl	inf	1.75	4.48	-	-	PS (5/6)	PS (4/6)	-	-	NA
39	4 y	S	Draft	inf	NA	3.36	-	mild	PS (5/6)	PS (4/6)	+	-	NA
40	3 y	M	Trotter	pm	1.05	4.83	-	mild	HS (5/6)	PS (3/6)	-	-	NA
41	14 y	M	Wbl	pm	1.70	4.86	-	-	HS (3/6)	PS (5/6)	+	-	NA
42	3 y	S	Pony	pm	0.95	5.58	+	moderate	HS (3/6) HD (3/6)	PS (5/6)	-	-	NA