

Supplementary Table S1. Details regarding the 13 calves that underwent excretory urography, six of which were nondysuric with swelling in the umbilical region and seven were dysuric without clinical umbilical swelling from November 2022 to April 2024

No.	Species	Sex	Age (month)	Body weight (kg)	Clinical sign	Ultrasonographic finding	Excretory urography findings in the urinary bladder	Aspect ratio of the urinary bladder	Aspect ratio of the urinary bladder after surgery
1	Holstein	Female	1	32	Umbilical swelling Growth insufficiency Shortened mandibular	No specific findings	Urachal diverticula	2.08	
2	Jersey	Male	2	73	Umbilical swelling	Not performed	No specific findings	1.87	
3	Holstein	Male	2	47	Umbilical swelling	Omphalitis	No specific findings	1.08	
4	Hybrid	Male	1	62	Umbilical swelling	Not performed	Urachal diverticula	1.95	
5	Jersey	Male	2	55	Umbilical swelling	Not performed	No specific findings	1.98	
6	Jersey	Male	2	60	Umbilical swelling	Not performed	No specific findings	2.43	
7	Hybrid	Male	8	157	Dysuria Growth insufficiency	Pyourachus	No specific findings	3.90	3.50
8	Holstein	Female	5	112	Dysuria Growth insufficiency	Umbilical abscess Pyourachus	Fusiform-shape	11.89	1.82
9	Holstein	Female	3	102	Dysuria	Persistence urachus	Fusiform-shape	3.92	1.57
10	Holstein	Female	1	64	Dysuria	Pyourachus	No specific findings	3.89	
11	Japanese Black	Male	1	41	Dysuria	Umbilical abscess Liver abscess Persistence urachus	No specific findings	3.21	1.77
12	Holstein	Female	3	70	Dysuria	Pyourachus	Fusiform-shape	5.13	
13	Holstein	Male	2	98	Dysuria	Omphalitis	No specific findings	1.34	