



**University of  
Zurich**<sup>UZH</sup>

**Zurich Open Repository and  
Archive**

University of Zurich  
University Library  
Strickhofstrasse 39  
CH-8057 Zurich  
[www.zora.uzh.ch](http://www.zora.uzh.ch)

---

Year: 2013

---

**Ultrasonographic examination of the abdomen of the goat. II. Liver, spleen, urinary tract and greater omentum**

Braun, Ueli ; Jacquat, D ; Steininger, K

DOI: <https://doi.org/10.1024/0036-7281/a000442>

Posted at the Zurich Open Repository and Archive, University of Zurich

ZORA URL: <https://doi.org/10.5167/uzh-77064>

Journal Article

Supplemental Material

Originally published at:

Braun, Ueli; Jacquat, D; Steininger, K (2013). Ultrasonographic examination of the abdomen of the goat. II. Liver, spleen, urinary tract and greater omentum. *Schweizer Archiv für Tierheilkunde*, 155(3):185-195.

DOI: <https://doi.org/10.1024/0036-7281/a000442>

Table 1: Results of ultrasonographic examination of the liver in 27 female Saanen goats (mean  $\pm$  SD, range in brackets) (reproduced from Braun and Steininger, 2011).

Variable	Intercostal space							
	5 (n = 5)	6 (n = 24)	7 (n = 27)	8 (n = 27)	9 (n = 27)	10 (n = 25)	11 (n = 19)	12 (n = 6)
Dorsal liver margin (cm)	31.4 $\pm$ 1.52 (29.0-33.0)	28.8 $\pm$ 2.80 (22.0-33.0)	25.1 $\pm$ 2.91 (19.0-29.5)	20.9 $\pm$ 2.94 (15.5-27.5)	17.0 $\pm$ 2.59 (11.0-20.5)	13.5 $\pm$ 2.79 (7.0-18.0)	9.7 $\pm$ 2.10 (6.0-14.0)	7.9 $\pm$ 1.28 (7.0-10.0)
Ventral liver margin (cm)	39.1 $\pm$ 6.28 (33.5-49.0)	41.3 $\pm$ 4.98 (29.5-51.0)	41.0 $\pm$ 4.23 (30.5-50.0)	36.8 $\pm$ 4.81 (28.0-46.0)	32.1 $\pm$ 4.53 (24.0-41.0)	27.0 $\pm$ 5.37 (18.0-43.0)	20.9 $\pm$ 4.61 (15.5-35.0)	18.5 $\pm$ 3.78 (13.5-23.0)
Size of liver (cm)	7.7 $\pm$ 6.66 (0.5-17.0)	12.9 $\pm$ 4.18 (6.5-22.5)	15.9 $\pm$ 3.72 (10.0- 23.5)	15.9 $\pm$ 4.74 (9.0-28.5)	15.2 $\pm$ 4.13 (6.0-22.0)	13.5 $\pm$ 3.98 (7.0-25.0)	11.2 $\pm$ 4.21 (4.0-22.0)	10.6 $\pm$ 3.35 (6.5-15.5)
Thickness of liver (cm)	NE	3.9 $\pm$ 0.94 (1.9-5.5)	4.6 $\pm$ 1.00 (3.3-7.0)	5.0 $\pm$ 0.95 (3.5-6.7)	5.0 $\pm$ 0.91 (3.5-6.7)	5.2 $\pm$ 0.79 (3.5-6.7)	5.0 $\pm$ 1.30 (1.4-6.4)	4.5 <sup>1</sup>
Angle of liver (degree)	29.0 $\pm$ 6.56 (22.0-35.0)	27.5 $\pm$ 5.62 (17.0-40.0)	28.8 $\pm$ 5.96 (15.0-40.0)	32.6 $\pm$ 5.91 (19.0-43.0)	30.5 $\pm$ 6.68 (15.0-40.0)	33.5 $\pm$ 8.26 (20.0-53.0)	35.8 $\pm$ 10.56 (20.0-64.0)	47.4 $\pm$ 6.03 (40.0-55.0)
Hemi circumference of abdomen (cm)	44.4 $\pm$ 4.93 (38.0-50.0)	44.6 $\pm$ 6.50 (17.5-51.0)	45.2 $\pm$ 6.01 (18.0-52.0)	46.0 $\pm$ 5.59 (22.0-53.0)	47.4 $\pm$ 5.44 (26.0-55.0)	48.3 $\pm$ 5.69 (27.0-58.0)	49.8 $\pm$ 6.35 (29.0-59.0)	52.6 $\pm$ 5.08 (43.0-59.0)

NE Not examined because the portal vein could not be seen

<sup>1</sup> In the 12th intercostal space the thickness of the liver could be determined only in one goat, because the portal vein was visible only in one goat.

Table 2: Measurements of the kidneys in 29 female Saanen goats ( $\bar{x} \pm s$ , range in brackets) (reproduced from Steininger and Braun, 2012).

Variable	Right kidney	Left kidney
Length of kidney (cm)	n = 28 $8.0 \pm 0.67$ (6.6 – 9.4)	n = 27 $8.4 \pm 0.64$ (6.4 – 9.7)
Width of kidney (cm)	n = 26 $5.2 \pm 0.75$ (3.9 – 6.4)	n = 25 $5.0 \pm 0.64$ (3.9 – 6.3)
Thickness of kidney (cm)	n = 26 $4.3 \pm 0.63$ (3.2 – 5.5)	n = 25 $4.4 \pm 0.55$ (3.1 – 5.6)
Thickness of renal cortex (cm)	n = 28 $0.9 \pm 0.21$ (0.4 – 1.3)	n = 27 $1.0 \pm 0.22$ (0.6 – 1.4)
Thickness of renal parenchyma (cm)	n = 25 $1.8 \pm 0.53$ (1.0 – 3.6)	n = 25 $1.7 \pm 0.41$ (1.1 – 3.2)
Thickness of renal sinus (cm)	n = 25 $0.9 \pm 0.19$ (0.5 – 1.2)	n = 25 $0.9 \pm 0.25$ (0.4 – 1.5)
Diameter of medullary pyramid 1 (cm)	n = 28 $1.2 \pm 0.27$ (0.7 – 1.8)	n = 25 $1.2 \pm 0.18$ (0.9 – 1.5)
Diameter of medullary pyramid 2 (cm)	n = 27 $1.2 \pm 0.21$ (0.8 – 1.7)	n = 25 $1.2 \pm 0.24$ (0.9 – 1.8)
Diameter of medullary pyramid 3 (cm)	n = 27 $1.3 \pm 0.24$ (0.9 – 2.0)	n = 25 $1.2 \pm 0.24$ (0.8 – 1.8)