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	4
I.	5
II.	7
III.	9
IV.	19
V.	74
VI.	75
VII.	76
VIII.	77
	79
SUMMARY	81

US –

2D US –

3D US –

Doppler US –

–

MRI – -

Th –

L –

DV –

LL –

I.

(Barone, 1997),

lobus hepatis dexter, lobus hepatis sinister lateralis, lobus hepatis sinister medialis, lobus quadratus lobus caudatus. (Vella and

Donnelly, 2004),

lobus quadratus

lobus quadratus lobus quadratus

vesica fellea.

lobus quadratus lobus hepatis dexter.

lobus quadratus

lobus hepatis dexter lobus

hepatis sinister medialis.

hepaticae,

aa. hepaticae

v. portae vv.

Doppler US, CT MRI)

(US,

regio abdominis cranialis,

e

3D US

Doppler US

US

MRI

regio abdominis cranialis

MRI,

II.

(2D B-mode US, 3D US,
MRI,

Doppler US,

)

1.

in situ

- 2.
3. 2D US
- 4.
5. 3D US
6. Doppler US.
7. ()
- 8.
9. MRI
10. MRI 1
11. - 2 *a. hepatica communis*

a. hepatica propria,

12.

v. portae, vv. hepaticae ductus choledochus

III.

III. 1.

160

8

2.8 kg

3.2 kg.

. 1.1

. 1.2.

. 1. 1.

		2D				3D	Doppler	-2D					
L	T												
10	10	10	6	6	8	8	6	10	10	6	64	90	

:

-

:

L – *in situ*

T – ,

2D -

-
-
3D -
-2D -

1. 2.

- 10	- 10	70
- 10	- 10	
Venae hepaticae - 10	Venae hepaticae - 10	
	A. hepatica - 10	

III. 2.

III. 2. 1.

III. 2. 1. 1. *in situ*

1.

2.

4.

ventralis, proc. xiphoideus

5.

6.

omentum majus.

7.

8.

9.

10.

Canon Legria HF R16E (Canon Inc. Japan).

11.

(LL)

(DV)

Powerfix Profi®, (Germany).

12.

(Statistica 8 - StatSoft

DELL, USA, 2013).

13.

III. 2. 1. 2.

III. 2. 1. 2. 1.

10 mm.

Th8,

L2.

III. 2. 1. 2. 2.

10 mm.

10 mm

- 40 mm.

III. 2. 1. 2. 3.

15 mm.

, 15 mm ,
45 mm.

III. 2. 1. 3.

III. 2. 1. 3. 1.

1. ,

, *ductus choledochus*, *pars cranialis duodeni*.

2. *pars cranialis duodeni*,

20 mm

3. *pars abdominalis*

margo dorsalis

4. E , *pars cranialis duodeni*.

5. Simax 0,6/1,01 ().

6. 30 min.

7. *pars*

cranialis duodeni.

8. *papilla duodeni major*.

9. 18 G *papilla*

duodeni major 5 ml (0.9% NaCl, Balkanfarma).

10. *papilla duodeni major*

(PROBIO-) 18 *ductus choledochus*.

ductus choledochus.

11. *papilla duodeni major*
 (+, , SpofaDental,
 Czech Republic), :
 -10 g (TS, DEUTEK S.A.)
 30 g +.
 -30 g + .
 12. 5 ml

papilla duodeni major.

13. (, *pars*
cranialis duodeni) (+4C°)
pars cranialis
duodeni.

14.

15. PVC , 7 l 1.5 l
 3 l (38% . . HCL, ,
)(. 1: 2).

16.

48 h.

17.

18.

III. 2. 1. 3. 2.

v. portae

1.

2.

3. *v. portae* (0.9% NaCl,
Balkanfarma).

4. *v. portae* Th13-L1.

5. Th13 L4.

6. +. 10 g
(TS, DEUTEK S.A.).

7. 10 ml
20 ml.

8.
(+4C°) 24 h.

9.
, IV. 2. 1. 3. 1.

10.
, Powerfix Profi®, (Germany).

11. (Statistica
8 - StatSoft DELL, USA, 2013).

12.
.
III 2. 1. 3. 3.

vv. hepaticae

1. .

2. *v. cava caudalis*

Th10 L3.

3. L2.

4. (0.9% NaCl,
Balkanfarma).

5.

v. cava caudalis ductus choledochus. *v. cava caudalis*, *ductus choledochus* – .

6.

7. *vv. hepaticae*

Powerfix Profi®, (Germany).

8.

(Statistica 8

- StatSoft DELL, USA, 2013).

9.

III. 2. 2.

III. 2. 2. 1. (Erlich)-

III. 2. 3.

III. 2. 3. 1. 2D US

III. 2. 3. 2. 2D US

III. 2. 3. 3. 2D US

III. 2. 3. 4. 3D US

III. 2. 3. 5. Doppler US

III. 2. 3. 6.

III. 2. 3. 7. CT

(Statistica 8 - StatSoft

DELL, USA, 2013).

P=95%.

III. 2. 3. 8. MRI

III. 2. 3. 9.

III. 2. 3. 9. 1.

- :
1. -
 2. *aorta abdominalis* (0.9% NaCl, Balkanfarma)
 3. *aorta abdominalis* Th12 - L1.
 4. *a. mesenterica cranialis, a. celiaca aorta abdominalis.*
L1 L3.
 5. Rö- , 10 g
- - - BaSO4 90 g, 30 g 100 ml .
 6. *aorta abdominalis*
 7. Th10 L1.
 8. .
 9. *aorta abdominalis aa. hepaticae.*
 10. ,
aa.
 11. *hepaticae.*
DICOM USB .
 12. NAV (2012).
 13. ,

14.

(StatSoft®STATISTICA 7 - Dell Software, USA, 2013)

III. 2. 3. 9. 2.

:

1.

v. portae.

2.

3.

4.

Rö-

(

).

5.

6.

L1

7.

8.

(

aa. hepaticae).

9.

(

aa. hepaticae.

11.

(StatSoft®STATISTICA 7 - Dell Software, USA, 2013).

III. 2. 3. 9. 3.

:

1.

ductus choledochus ductus hepaticus communis.

2. *ductus choledochus* *papilla duodeni*
major (,).

3. Rö- .

4. .

5. , *pars cranialis*
duodeni.

6.

7. (

aa. hepaticae).

8. (*aa.*
hepaticae).

9. ,
NAV (2012).

IV. 2. 3. 9. 4.

, :

1. *v. cava caudalis* L1.

2. *v. cava caudalis*.

3. Rö- .

4.

(7 ml).

5. *v. cava caudalis*.

6. *v. cava caudalis*.

7. *v. cava*
caudalis *vv. hepaticae*.

8. *vv. hepaticae* (*aa.*
hepaticae).

9.

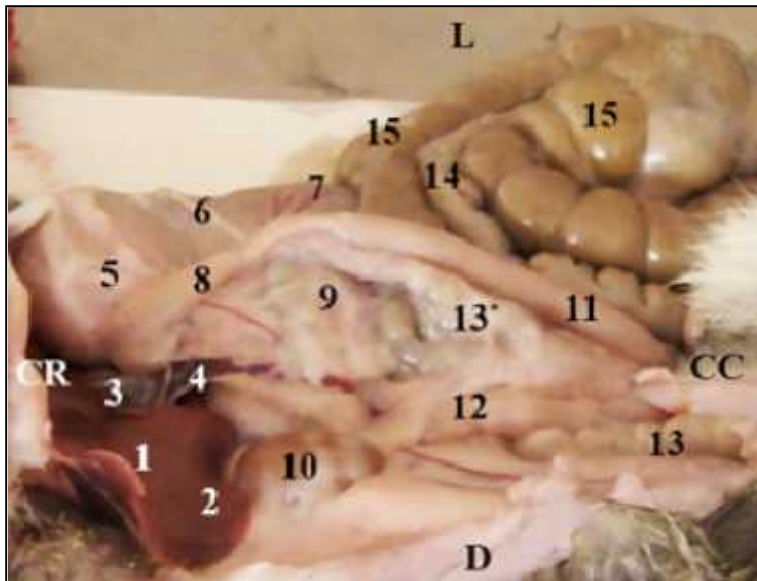
(StatSoft®STATISTICA 7 - Dell Software, USA, 2013).

IV.

IV. 1.

e ,
*regio abdominis cranialis. Lobus hepatis
dexter*

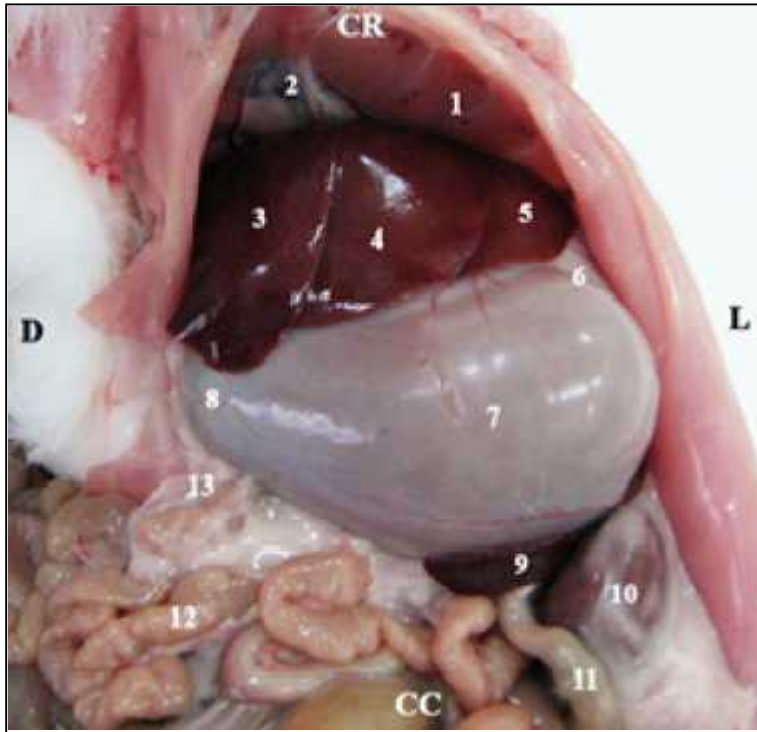
(.1).



. 1. (;
omentum majus) (CR- ; CC- ; L- ;
D-). (1) *lobus hepatis dexter*; (2) *lobus caudatus*; (3) *porta hepatis*; (4)
v. cava caudalis; (5) *pars pylorica*; (6) *corpus ventriculi*; (7) *fundus*
ventriculi; (8) *pars cranialis duodeni*; (9) *ren sinister*; (10) *ren dexter*; (11)
pars descendens duodeni; (12) *pars ascendens duodeni*; (13) *colon*
descendens; (13*) *colon descendens et mesocolon descendens*; (14) *colon*
ascendens; (15) *caecum*.

Lobus hepatis dexter

,
lobus hepatis sinister medialis *facies diaphragmatica. Lobus*
hepatis sinister medialis -
 , - - *lobus hepatis sinister*
lateralis *facies diaphragmatica. Lobus hepatis sinister lateralis*
 (.2).



. 2.

(
omentum majus (CR- ; CC- ; L- ;
 D-). (1) *diaphragma*; (2) *lig. coronarium hepatis et v. cava caudalis*;
 (3) *lobus hepatis dexter*; (4) *lobus hepatis sinister medialis*; (5) *lobus hepatis*
sinister lateralis; (6) *pars cardiaca*; (7) *corpus ventriculi*; (8) *pars pylorica*;
 (9) *lien*; (10) *ren sinister*; (11) *pars ascendens duodeni*; (12) *jejunum*; (13)
pars descendens duodeni.

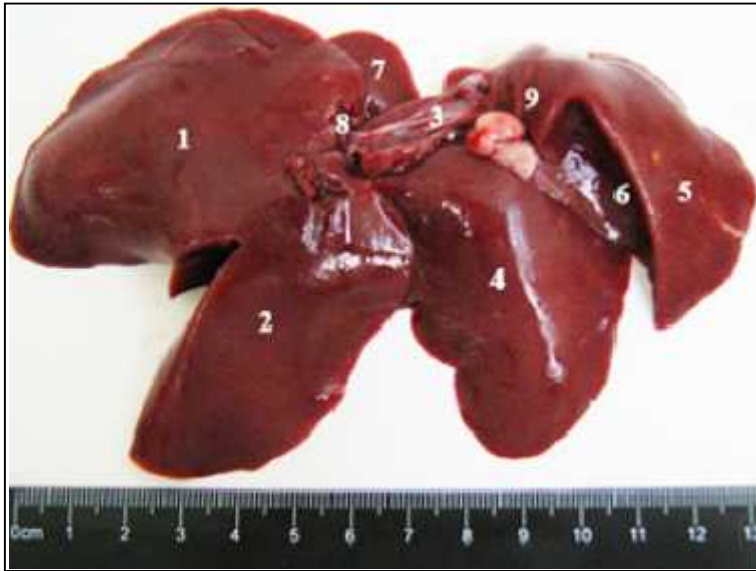
Facies visceralis *Lobus hepatis sinister medialis* *lobus hepatis*
sinister lateralis . *Lobus*

sinister

. Lobus hepatis dexter

proc. papillaris,

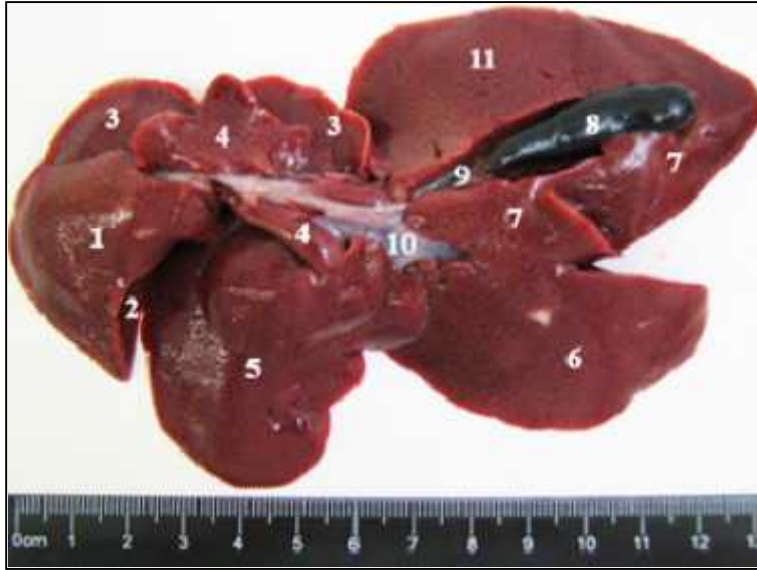
(.4).



.4. (). (1) *lobus hepatis dexter*; (2) *lobus hepatis sinister medialis*; (3) *v. cava caudalis sulcus venae cave*; (4) *lobus hepatis sinister lateralis*; (5) *proc. caudatus* (); (6) *impressio renalis*; (7) *proc. papillaris*; (8) *incisura oesophagea*; (9) *lig. coronarium*.

- *lobus hepatis dexter, lobus caudatus, lobus quadratus, lobus hepatis sinister lateralis lobus hepatis sinister medialis. Facies visceralis*

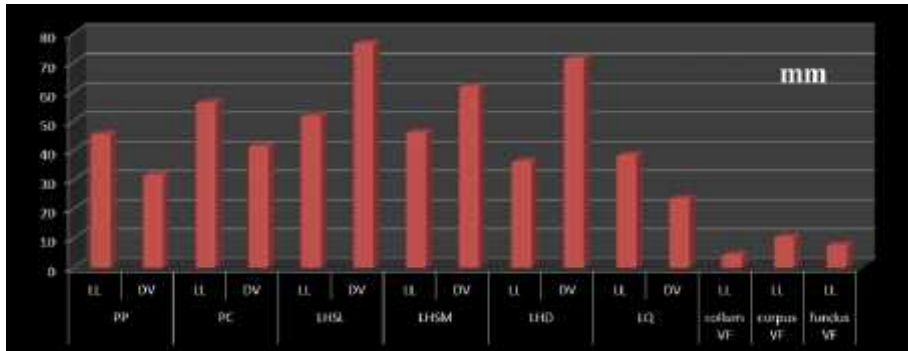
(.5).



. 5. (). (1) *proc. caudatus*; (2) *impressio renalis*; (3) *lobus caudatus*; (4) *proc. papillaris*; (5) *lobus hepatis sinister lateralis*; (6) *lobus hepatis sinister medialis*; (7) *lobus quadratus*; (8) *vesica fellea*; (9) *ductus cysticus*; (10) *porta hepatis*; (11) *lobus hepatis dexter*.

LL *proc. caudatus* - - 56.50 mm,
 , *proc. papillaris* - 45.67 mm. DV *proc. caudatus* - (41.50 mm) *proc. papillaris* (31.67 mm).
 - , LL *lobus hepatis sinister lateralis* 51.83 mm,
 DV - 76.67 mm. *Lobus hepatis sinister medialis* -
 , LL 46.33 mm, DV - 62.00 mm. *lobus hepatis sinister lateralis lobus hepatis sinister medialis, lobus hepatis dexter*
 DV - 71.50 mm, LL - 36.33 mm. *Lobus quadratus* -
 , LL 28.50 mm, DV 23.67 mm.

LL *collum vesicae felleae* 4.50 mm. *Corpus vesicae felleae* - 10.67 mm, LL *fundus vesicae felleae* 7.83 mm (. 6).



. 6. LL DV (mm)

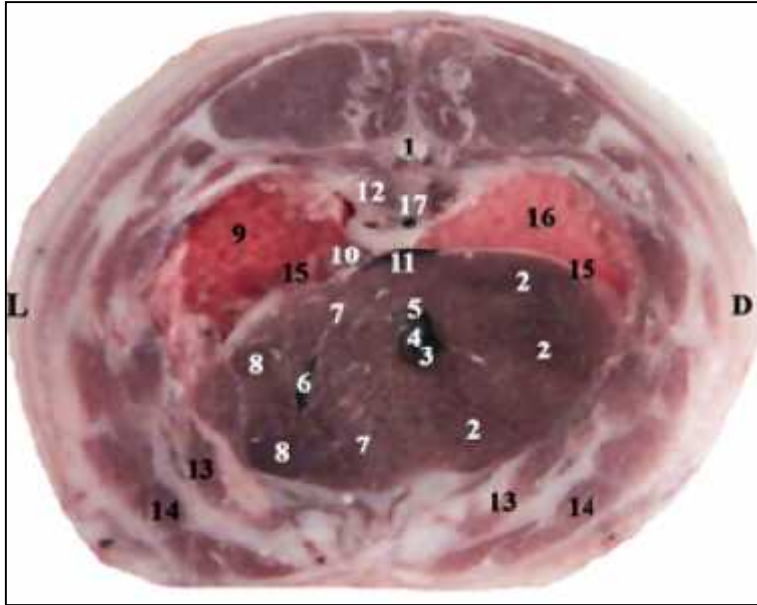
. (PP) *proc. papillaris*; (PC) *proc. caudatus*; (LHSL) *lobus hepatis sinister lateralis*; (LHSM) *lobus hepatis sinister medialis*; (LHD) *lobus hepatis dexter*; (LQ) *lobus quadratus*; (VF) *vesica fellea*; (LL); ; (DV)

(10 mm), Th8, *regio abdominis cranialis*, *regio xiphoidea*.

. *V. cava caudalis*

. *Lobus hepatis dexter*, *lobus hepatis sinister*. *Vesica fellea*

- , . *Lobus quadratus* (. 7).



.7. *regio abdominis cranialis* (L- ; D-). (1) *Th8*; (2) *lobus hepatis dexter*; (3) *fundus vesicae felleae*; (4) *corpus vesicae felleae*; (5) *collum vesicae felleae*; (6) *v. portae*; (7) *lobus hepatis sinister medialis*; (8) *lobus hepatis sinister lateralis*; (9) *pulmo sinister*; (10) *oesophagus*; (11) *v. cava caudalis*; (12) *aorta abdominalis*; (13) *m. transversus abdominis*; (14) *mm. obliquus externus et internus abdominis*; (15) *diaphragma*; (16) *pulmo dexter*, (17) *v. azygos dextra*.

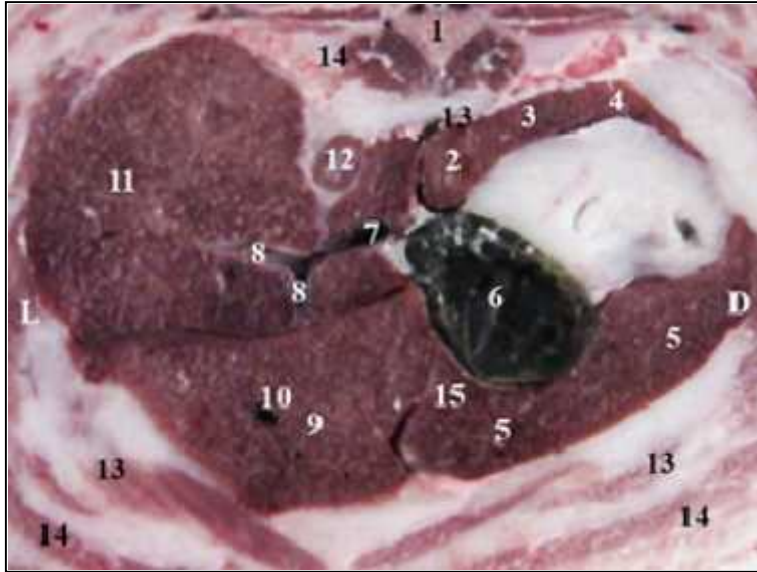
Th9

. *Vesica fellea*

lobus qu dratus. Lobus caudatus

(*proc. papillaris*

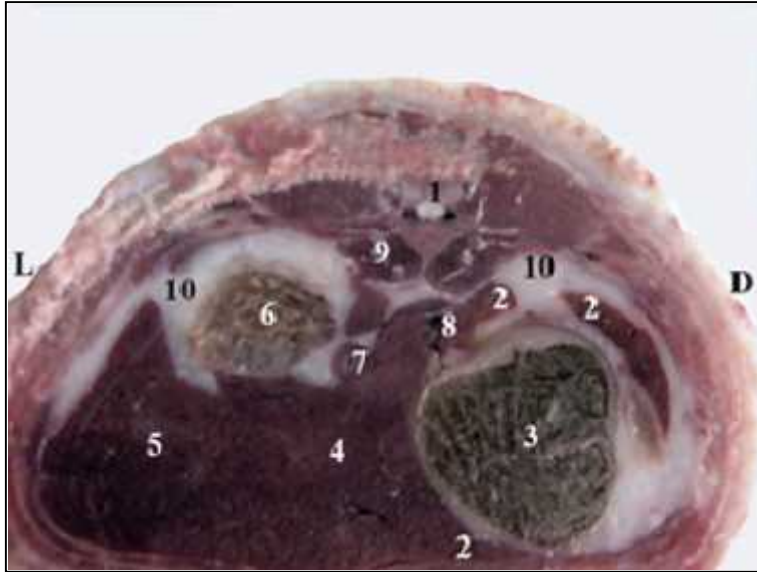
proc. caudatus) (. 8).



. 8. *regio abdominis cranialis* (L-
; D-). (1) *Th9*; (2) *proc. papillaris*; (3) *lobus caudatus*; (4) *proc. caudatus*; (5) *lobus hepatis dexter*; (6) *vesica fellea*; (7) *ductus cysticus*; (8) *ductus hepaticus sinister*; (9) *lobus hepatis sinister medialis*; (10) ; (11) *lobus hepatis sinister lateralis*; (12) *oesophagus*; (13) *v. cava caudalis*; (14) *aorta abdominalis*; (15) *lobus quadratus*; (16) *m. transversus abdominis*.

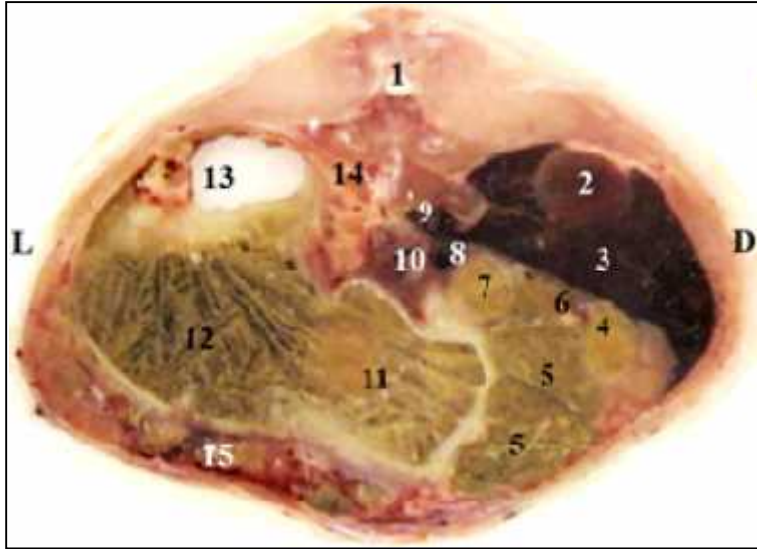
Th10 e

. *Corpus*
ventriculi *lobus hepatis dexter* *lobus*
hepatis sinister medialis . *Lobus caudatus*
corpus ventriculi (. 9).



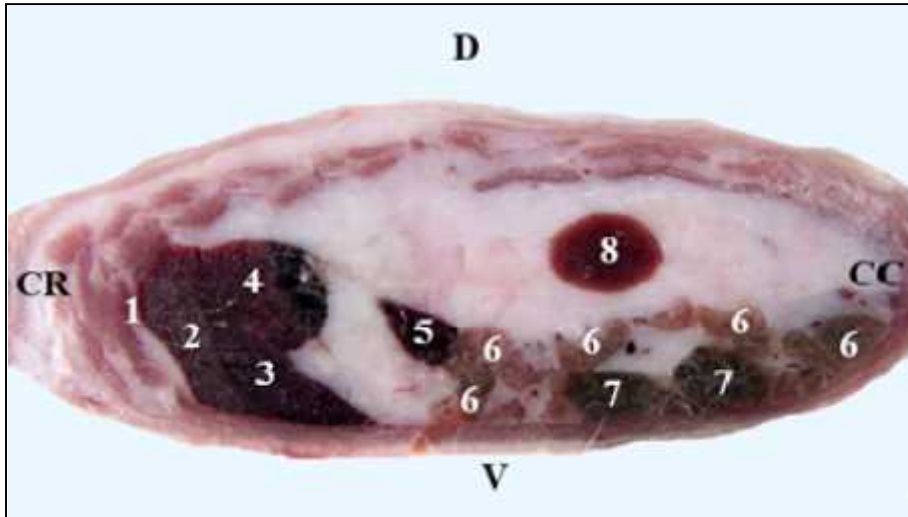
. 9. *regio abdominis cranialis* (L-
; D-). (1) *Th10*; (2) *lobus caudatus*; (3) *corpus ventriculi*; (4) *lobus hepatis sinister medialis*; (5) *lobus hepatis sinister lateralis*; (6) *fundus ventriculi*; (7) *oesophagus*; (8) *v. cava caudalis*; (9) *aorta abdominalis*; (10) ; (11) *m. transversus abdominis*; (12) *lobus hepatis dexter*.
L1 *proc. caudatus*

. *lobus hepatis dexter* *lobus caudatus* . e
, *colon ascendens* *colon transversum* (. 10).



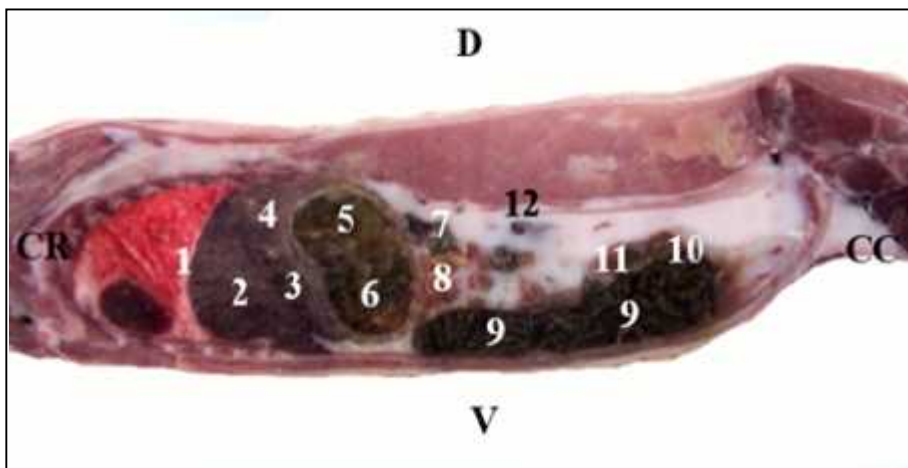
. 10. *regio abdominis cranialis* (L-
; D-). (1) L1; (2) *ren dexter*; (3) *lobus hepatis dexter*; (4)
duodenum; (5) *colon ascendens*; (6) *ileum*; (7) *colon transversum*; (8) *v.*
portae; (9) *v. cava caudalis*; (10) *pancreas*; (11) *caecum*; (12) *corpus*
ventriculi; (13) *fundus ventriculi*; (14) *aorta abdominalis*; (15) *jejunum*.
10 mm
lobus hepatis sinister medialis e *lobus*
hepatis sinister lateralis e *facies diaphragmatica. Proc.*
papillaris

(. 11).



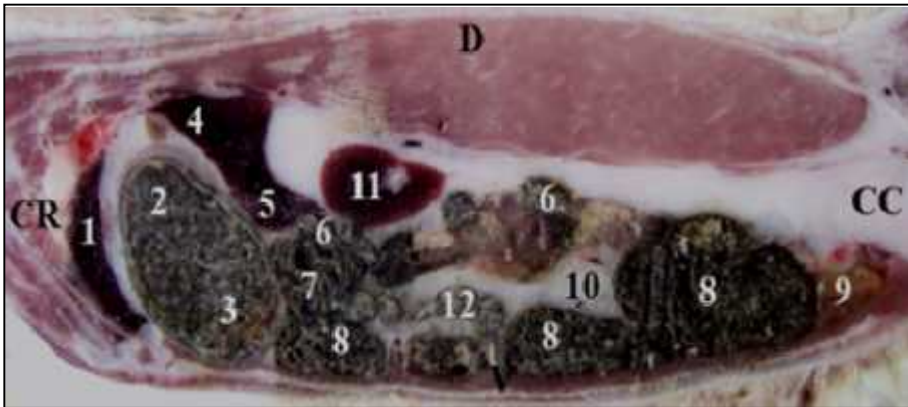
. 11. *cavum abdominis*
 , 10 mm (D- ; V-). (1) *diaphragma*, (2) *lobus hepatis sinister medialis*; (3) *lobus hepatis sinister lateralis*; (4) *proc. papillaris*; (5) *lien*; (6) *jejunum*; (7) *caecum*, (8) *ren sinister*.

, 20 mm ,
lobus hepatis sinister medialis .
lobus hepatis sinister lateralis *facies diaphragmatica*.
Lobus hepatis sinister lateralis *fundus et corpus*
ventriculi, *proc. papillaris* *fundus*
ventriculi (. 12).



. 12. *cavum abdominis*
 , 20 mm (D- ; V-). (1)
diaphragma; (2) *lobus hepatis sinister medialis*; (3) *lobus hepatis sinister lateralis*; (4) *proc. papillaris*; (5) *fundus ventriculi*; (6) *corpus ventriculi*; (7) *lien*; (8) *jejunum*; (9) *caecum*; (10) *duodenum*; (11) *colon ascendens*; (12) *ren sinister*
 , 10 mm ,
 , *lobus hepatis dexter*
 . *lobus hepatis dexter lobus caudatus*
caudatus . *Lobus hepatis dexter facies parietalis* . *Proc. caudatus fundus ventriculi* *pars cranialis duodeni, colon ascendens.*
Proc. papillaris

(. 13).

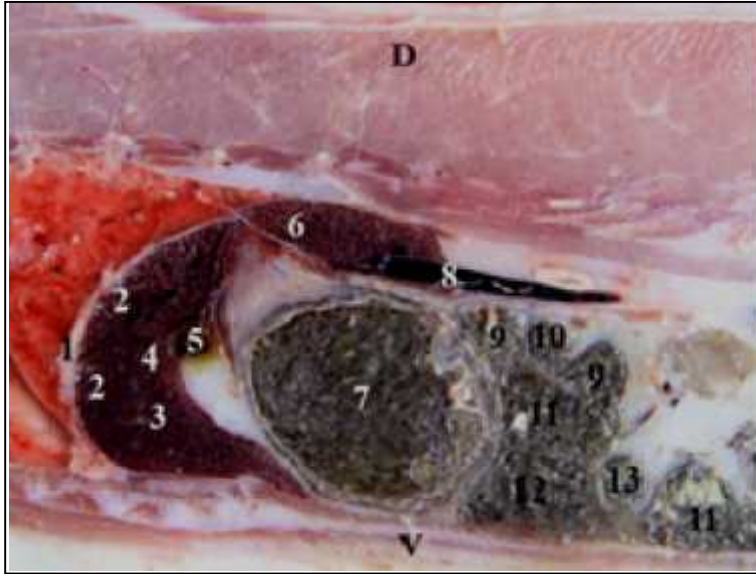


. 13. *cavum abdominis*
 , 10 mm (D- ; V-). (1)
lobus hepatis dexter; (2) *fundus ventriculi*; (3) *corpus ventriculi*; (4) *proc. papillaris*; (5) *proc. caudatus*; (6) *pars cranialis duodeni*; (7)
colon ascendens; (8) *caecum*; (9) *vesica urinaria*; (10)
 ; (11) *ren dexter*; (12) *ileum.*
 , 20 mm
lobus hepatis dexter

. *Lobus hepatis sinister medialis*

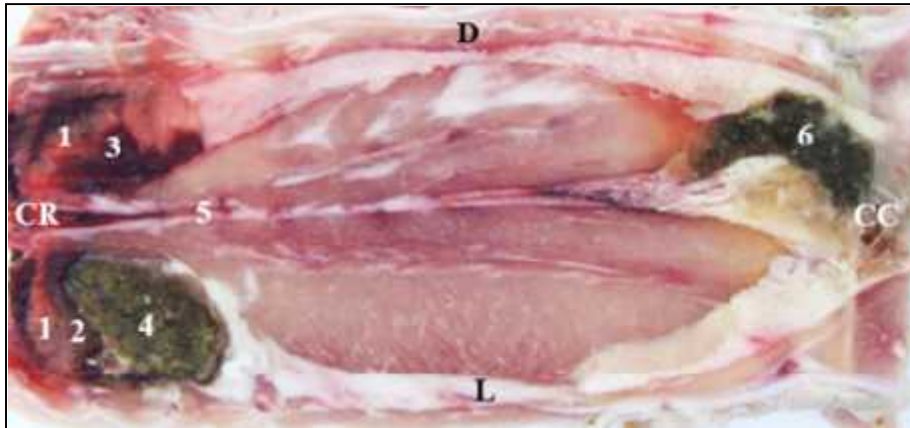
lobus quadratus. Vesica fellea

*. Lobus hepatis sinister medialis
corpus ventriculi. Lobus caudatus
(. 14).*



. 14. *cavum abdominis*
20 mm (D- ; V-). (1)
diaphragma; (2) lobus hepatis dexter; (3) lobus hepatis sinister medialis; (4)
lobus quadratus; (5) vesica fellea; (6) lobus caudatus; (7) corpus ventriculi;
(8) v. cava caudalis; (9) duodenum; (10) ileum; (11) caecum; (12) colon
ascendens; (13) jejunum.
15 mm

lobus hepatis sinister, – lobus hepatis dexter.
Facies visceralis lobus hepatis sinister pars cardiaca
fundus ventriculi. Lobus hepatis dexter
(. 15).



. 15. *regio abdominis*
 15 mm (CR ; CC- ; L- ; D-). (1) *diaphragma*; (2) *lobus hepatis sinister*; (3) *lobus hepatis dexter*; (4) *pars cardiaca et fundus ventriculi*; (5) *aorta abdominalis et v. cava caudalis*; (6) *colon descendens*.

30 mm

lobus hepatis dexter

lobus hepatis sinister medialis

pars pylorica. Lobus hepatis sinister lateralis

lobus hepatis sinister medialis

corpus ventriculi. Lobus

hepatis sinister lateralis

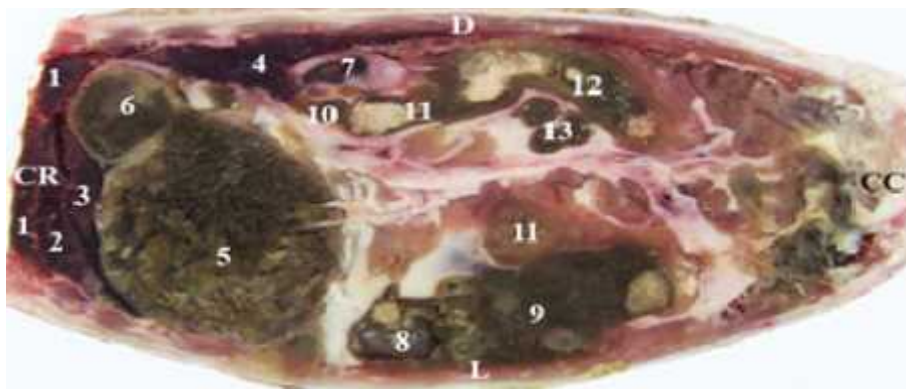
corpus

ventriculi pars pylorica. Lobus caudatus

pars pylorica,

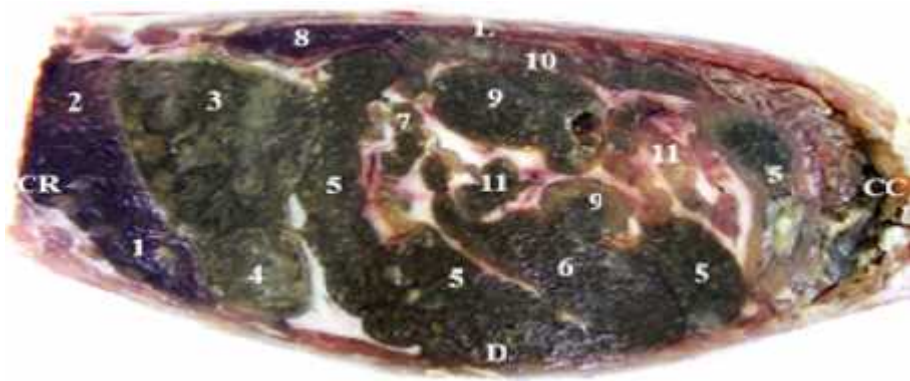
pars cranialis

duodeni (. 16).



. 16. *regio abdominis*
 30 mm (CR ; CC- ; L- ; D-). (1) *lobus hepatis dexter*; (2) *lobus hepatis sinister medialis*; (3) *lobus hepatis sinister lateralis*; (4) *lobus caudatus*; (5) *corpus ventriculi*; (6) *pars pylorica*; (7) *ren dexter*; (8) *ren sinister*; (9) *colon ascendens*; (10) *duodenum*; (11) *colon ascendens*; (12) *caecum*; (13) *jejunum*.

45 mm
 , *lobus hepatis dexter*
 . *Lobus hepatis dexter* *pars pylorica*. *Lobus hepatis sinister fundus et corpus ventriculi* (. 17).



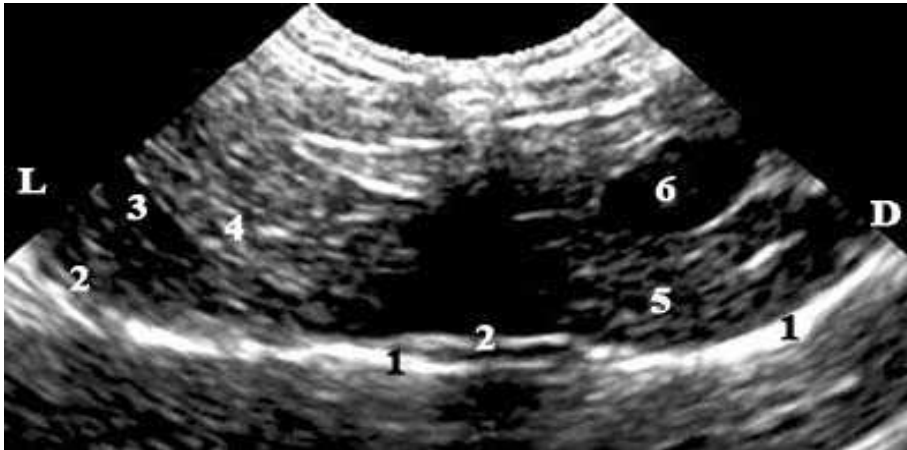
. 17. *regio abdominis*
 45 mm (CR ; CC- ; L- ; D-). (1) *lobus hepatis dexter*; (2) *lobus hepatis sinister*; (3) *fundus et corpus ventriculi*; (4) *pars pylorica*; (5) *caecum*; (6) *colon ascendens*; (7) *ileum*; (8) *lien*; (9) *colon ascendens*; (10) *colon descendens*; (11) *ansae jejunaes*.

IV. 2.

IV. 2. 1. 2D US

. *V. portae*

vv. hepaticae (. 18).



. 18. 2D US

(- 7 MHz; B-mode). L- ,
D- . (1) *diaphragma*; (2) *capsula fibrosa*; (3) *v. portae*; (4)
lobus hepatis sinister; (5) *lobus hepatis dexter*; (6) *vesica fellea*.
Vesica fellea

lobus hepatis sinister

lobus hepatis dexter.

(. 19).

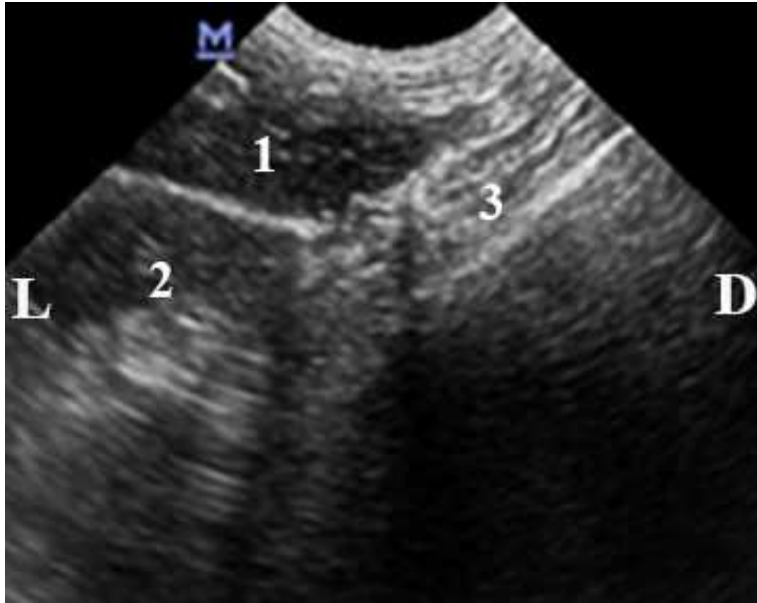


19. 2D US (7 MHz; B-mode). L- , D- . (1) *capsula fibrosa*; (2) *vesica fellea*; (3) *lobus hepatis sinister*; (4) *lobus hepatis dexter*.
 2D US *lobus caudatus*

lobus caudatus

pars cranialis

duodeni (. 20).



. 20. 2D US *lobus caudatus* (- 7 MHz; B-mode). L- , D- . (1) *lobus caudatus*; (2) *lobus hepatis dexter*; (3) *pars cranialis duodeni*.

21).



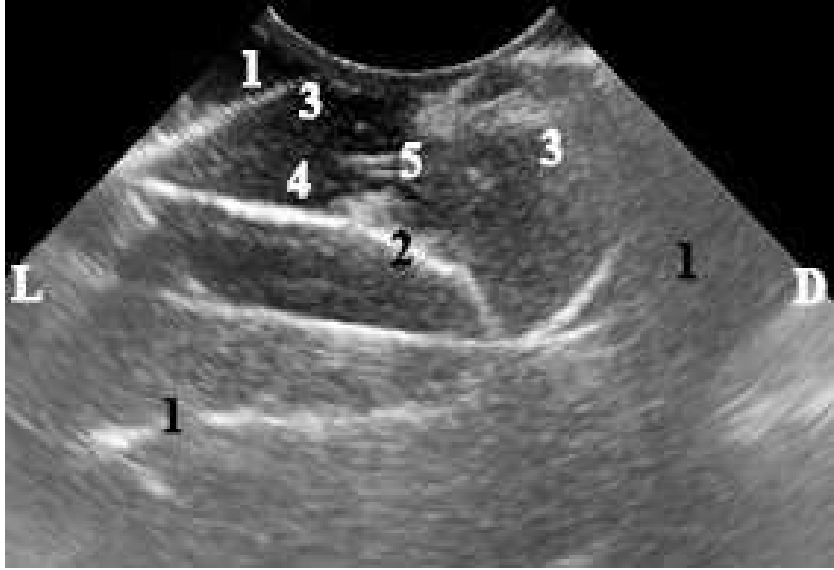
. 21. 2D US

(- 7 MHz; B-mode). L-

D- . (1) *diaphragma et capsula fibrosa*; (2) *hepar*; (3) *lien*.
2D US

. *V. portae*

. (. 22).



. 22. 2D US (- 7 MHz; B-mode).
 L- , D- . (1) ; (2) *capsula fibrosa*; (3)
 ; (4) *ductuli biliferi*; (5) *v. portae*.

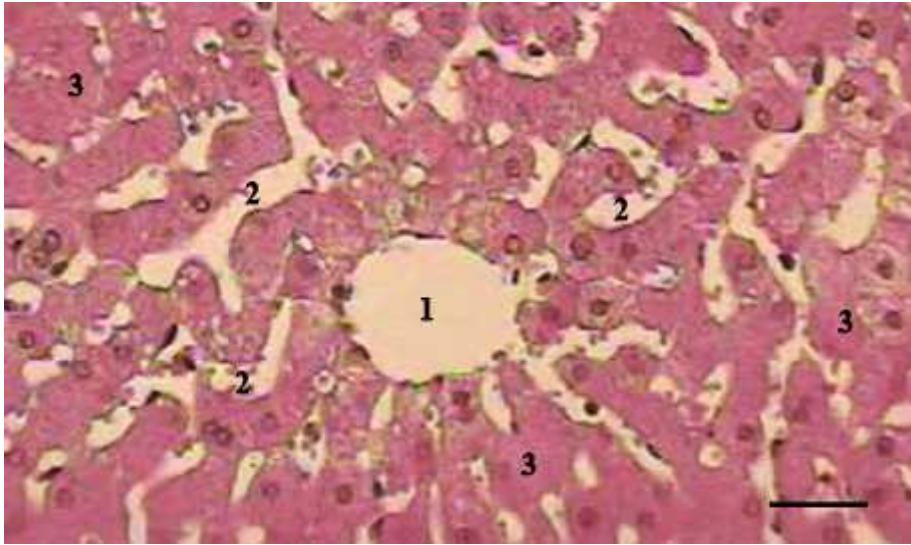
IV. 2. 2.

()

v. centralis,

().

(. 23).



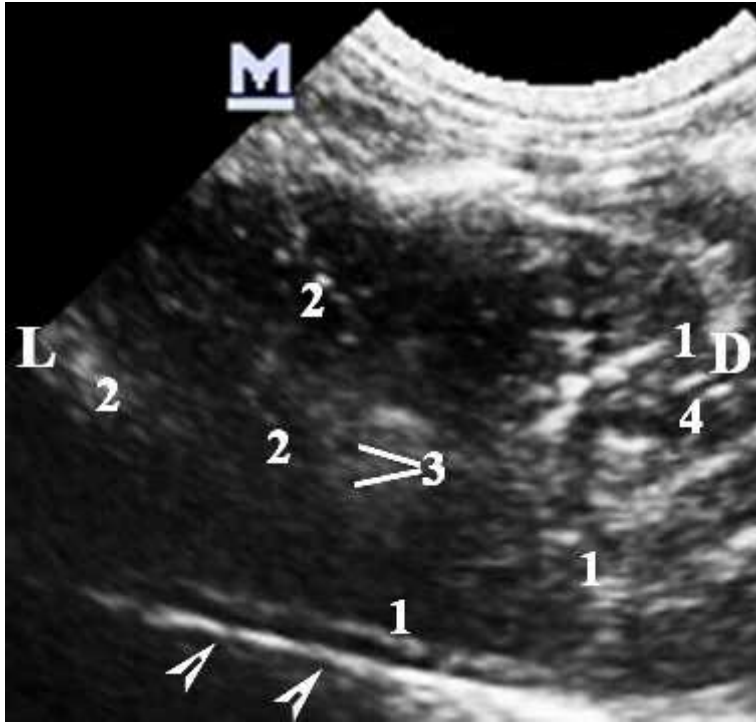
. 23.

. (1) *v. centralis*; (2) / . = 50 μ m. ; (3)

US

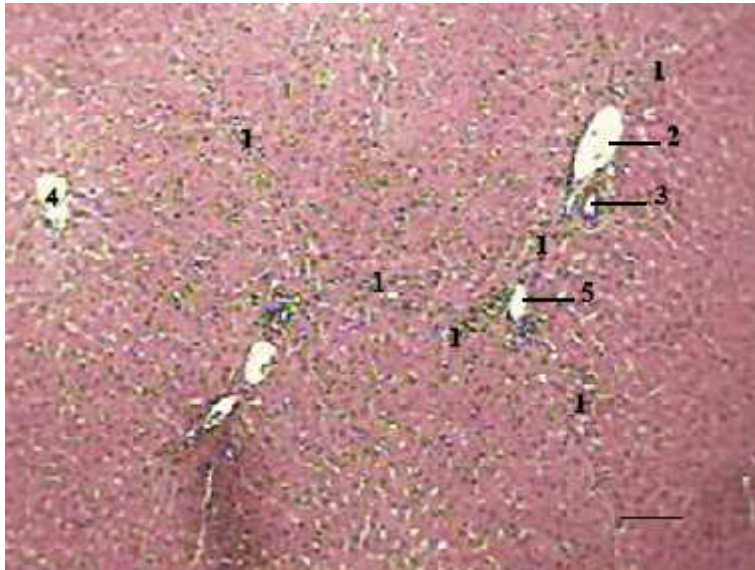
()

(. 24).



.24. 2D US (- 7 MHz; B-mode). (L- ; D-). (1) *capsula fibrosa*; (2) ; (3) *ductuli biliferi*; (4) *pars cranialis*) *diaphragma*.

(.25).



.25.
(1)
perilobularis; (4) *v. centralis*.
2D US

; (2) *v. interlobularis*; (3) *a.*
/ . = 135 μ m.

26).



.26. 2D US (- 7 MHz; B-mode). (L- ; D-). (1) ; (2) ; (3)

IV. 2. 3. 3D US

3D US

. US *lobus hepatis dexter lobus hepatis sinister*, *v. portae*. *lobus hepatis sinister lateralis, lobus hepatis sinister medialis.* *Lobus hepatis dexter*. *Vesica fellea*

capsula fibrosa (. 27).



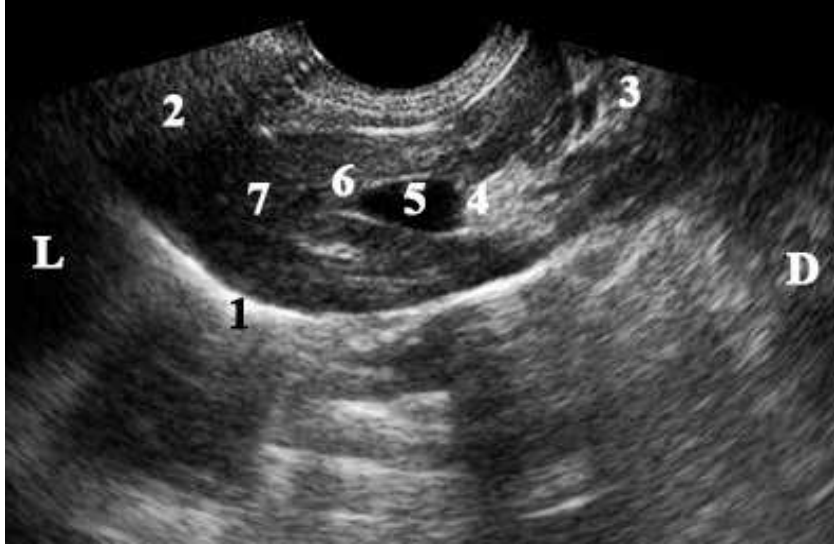
. 27. 3D US (3D - 7.5 MHz). L – , D – . (1) *diaphragma et capsula fibrosa*; (2) *lobus hepatis sinister lateralis*; (3) *lobus hepatis sinister medialis*; (4) *lobus hepatis dexter*; (5) *vesica fellea*; (6) *ductuli biliferi*; (7) *v. portae*.

Vesica fellea

lobus hepatis sinister medialis lobus hepatis dexter.

collum vesicae felleae ductus cysticus,

(. 28).

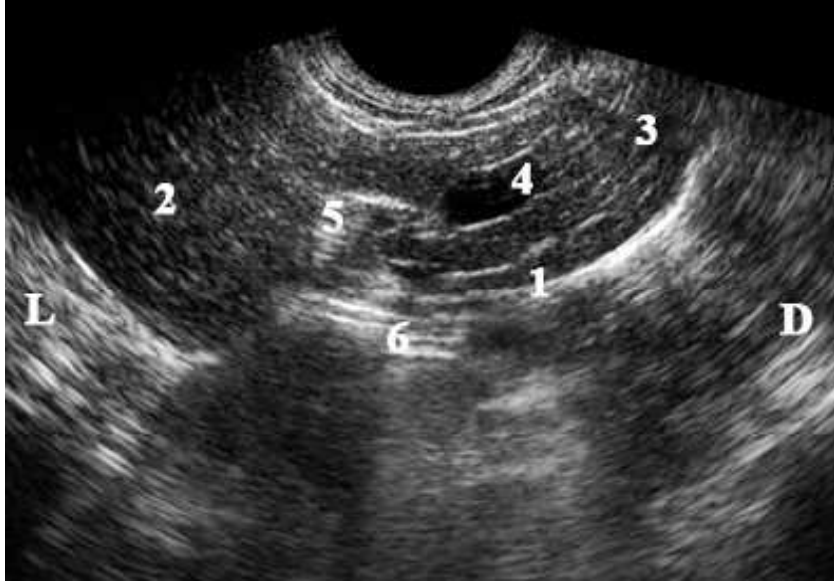


. 28. 3D US (, 3D - 7.5 MHz). L – , D – . (1) *diaphragma et capsula fibrosa*; (2) *lobus hepatis sinister*; (3) *lobus hepatis dexter*; (4) *fundus vesicae felleae*; (5) *corpus vesicae felleae*; (6) *infundibulum vesicae felleae*; (7) *ductus cysticus*.

lobus hepatis sinister lobus hepatis dexter . Capsula fibrosa

. *Porta hepatis*

. *porta hepatis vesica fellea,*
(. 29).



. 29. 3D US (- 7.5 MHz). L – , D – . (1) capsula fibrosa; (2) lobus hepatis sinister; (3) lobus hepatis dexter; (4) vesica fellea; (5) porta hepatis; (6) pars cranialis duodeni.

. Fundus vesicae felleae corpus vesicae felleae.

facies visceralis. Corpus vesicae felleae

- collum vesicae felleae,

- infundibulum vesicae felleae. collum

vesicae felleae ductus cysticus.

US

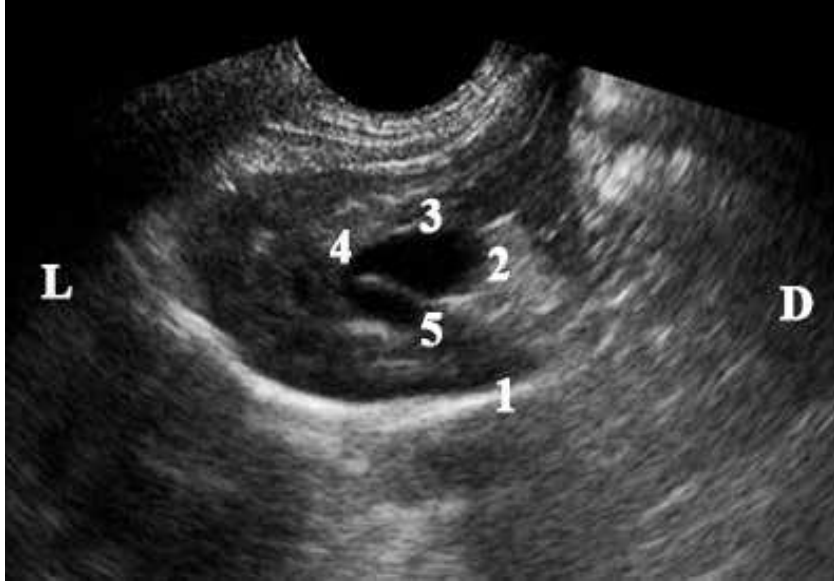
,

,

.

vesica fellea

(. 30).



. 30. 3D US (, 3D - 7.5 MHz). L – , D – . (1) *diaphragma et capsula fibrosa*; (2) *fundus vesicae felleae*; (3) *corpus vesicae felleae*; (4) *infundibulum vesicae felleae et collum vesicae felleae*; (5) *ductus cysticus*.

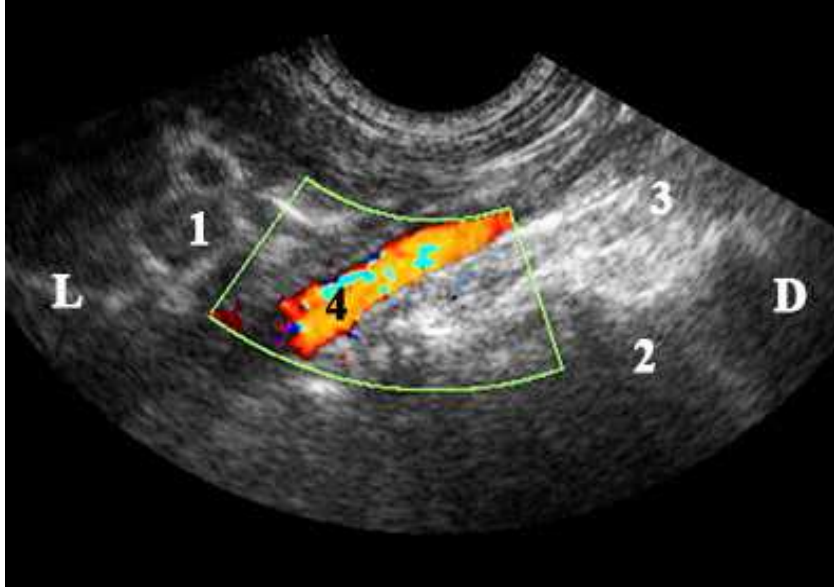
IV. 2. 3. Doppler US

aorta abdominalis

aorta abdominalis

().

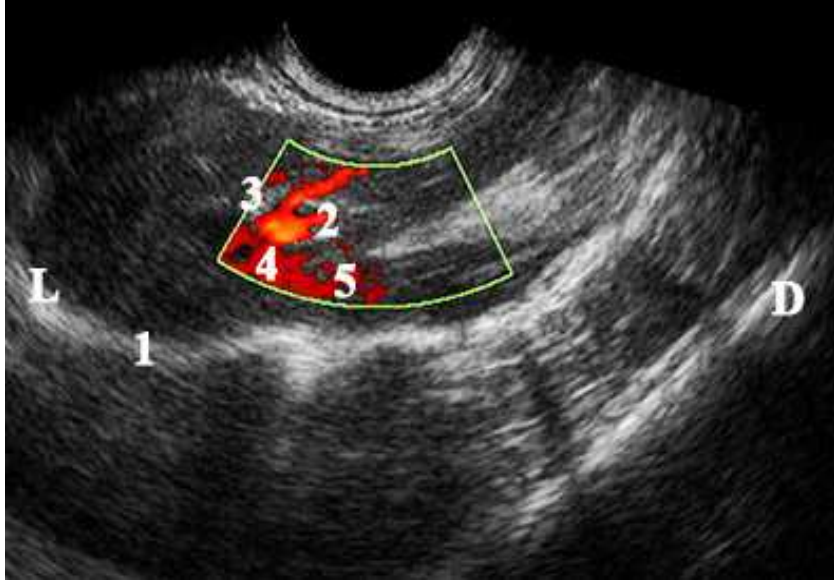
(.31).



. 31. Doppler US *aorta abdominalis*
 (- 7.5 MHz).
 L – ; D – . (1) ; (2) ; (3) ;
 (4) *aorta abdominalis*.

corpus et fundus vesicae felleae

infundibulum et collum vesicae felleae ductus cysticus (. 32).



. 32. Doppler US vesica fellea (- 7.5 MHz). L – ; D –
 . (1) diaphragma et capsula fibrosa; (2) fundus vesicae felleae; (3) corpus vesicae felleae; (4) infundibulum et collum vesicae felleae; (5) ductus cysticus.

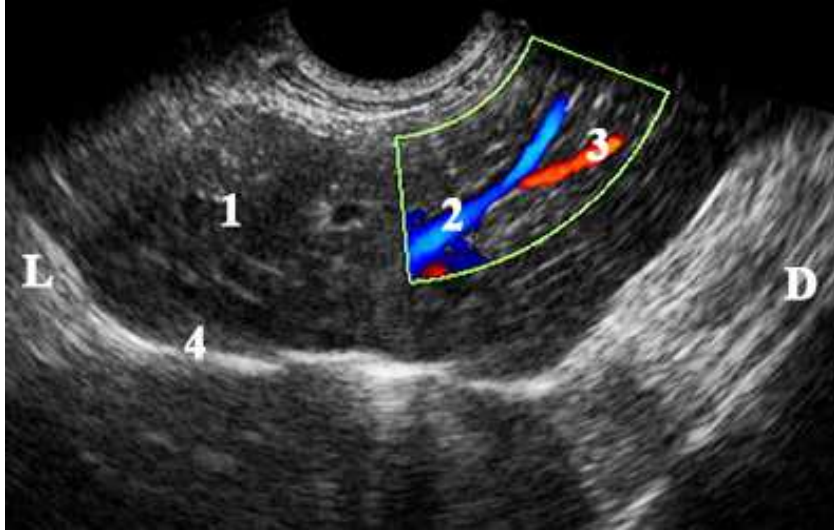
vv. hepaticae v. portae

, - , -
 ().

, , -
 ().

, (.
). VV. hepaticae

(.33).



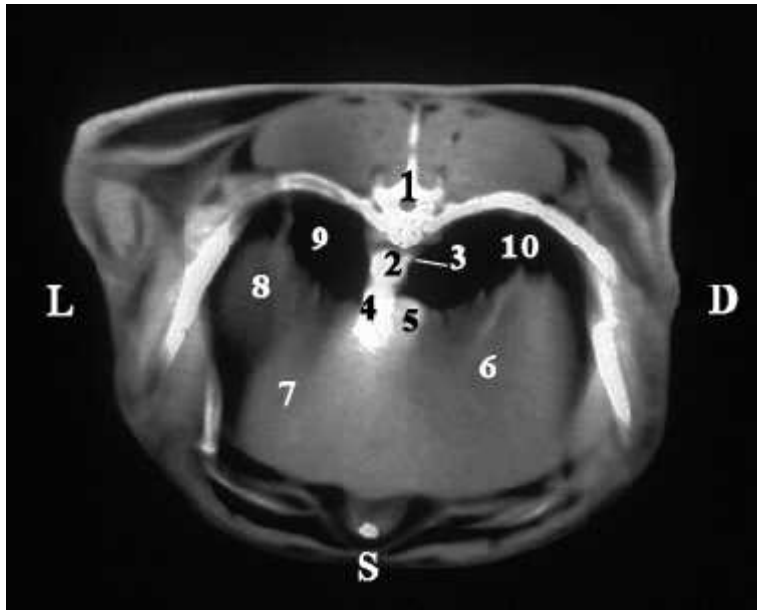
. 33. Doppler US vv. hepaticae v. portae (- 7.5 MHz). L – ; D – . (1) lobus hepatis sinister; (2) v. hepatica; (3) v. portae; (4) capsula fibrosa et diaphragma.

IV. 2. 4.

Th7 , regio abdominis cranialis , arcus costalis dextra et sinistra, e .

. Lobus hepatis dexter , lobus hepatis sinister . lobus hepatis sinister medialis et lateralis lobus hepatis dexter. lobus hepatis dexter ,

(. 34).



. 34. *regio abdominis cranialis*

(). L – ; D – . (1) Th7; (2) aorta abdominalis; (3) v. azygos dextra; (4) oesophagus; (5) v. cava caudalis; (6) lobus hepatis dexter; (7) lobus hepatis sinister medialis; (8) lobus hepatis sinister lateralis; (9); pulmo sinister (10) pulmo dexter.

Th8

lobus hepatis sinister lateralis et medialis

lobus hepatis dexter

Th9

fundus ventriculi. Lobus hepatis sinister medialis

(

)

. *Lobus hepatis dexter*

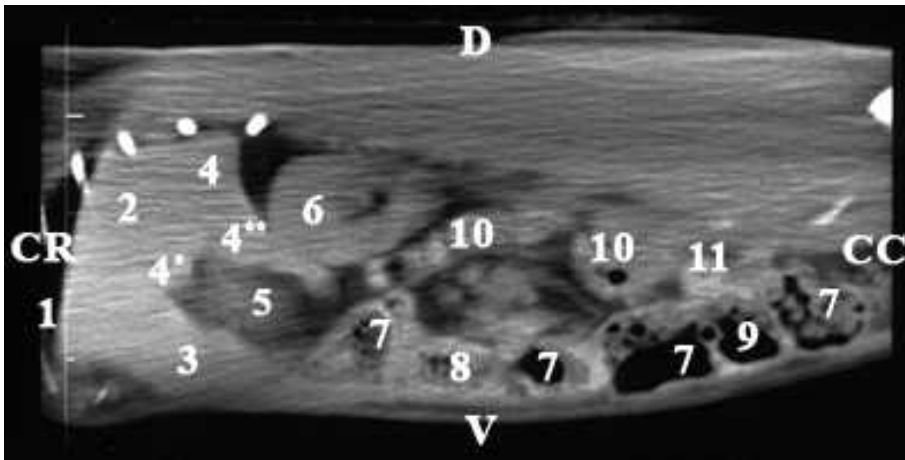
v. portae a. hepatica

. . *hepatica*
(. 35).



. 35. *regio abdominis cranialis* (
) . L – ; D – . (1) *Th9*; (2) *aorta abdominalis*; (3) *vena cava caudalis*; (4) *fundus ventriculi*; (5) *v. portae*; (6) *a. hepatica*; (7) *lobus hepatis dexter*; (8) *lobus hepatis sinister medialis*.
regio abdominis,
, 10 mm *lobus hepatis dexter*
lobus hepatis sinister medialis
lobus caudatus.
lobus hepatis dexter . *lobus hepatis dexter*
lobus caudatus, *fundus ventriculi*. *Proc caudatus*
fundus ventriculi *pars cranialis duodeni*,
proc. caudatus
proc. papillaris

proc. caudatus (. 36).



. 36. *cavum abdominis*,
10 mm . CR – , CC – , D –
, V – .

(1) *diaphragma*; (2) *lobus hepatis dexter*; (3) *lobus hepatis sinister medialis*; (4) *lobus caudatus*; (4*) *proc. papillaris*; (4**) *proc. caudatus*; (5) *fundus ventriculi*; (6) *ren dexter*; (7) *caecum*; (8) *ileum*; (9) *colon ascendens*; (10) *duodenum*; (11) *jejunum*.

20 mm

lobus hepatis dexter

. *Lobus hepatis dexter*

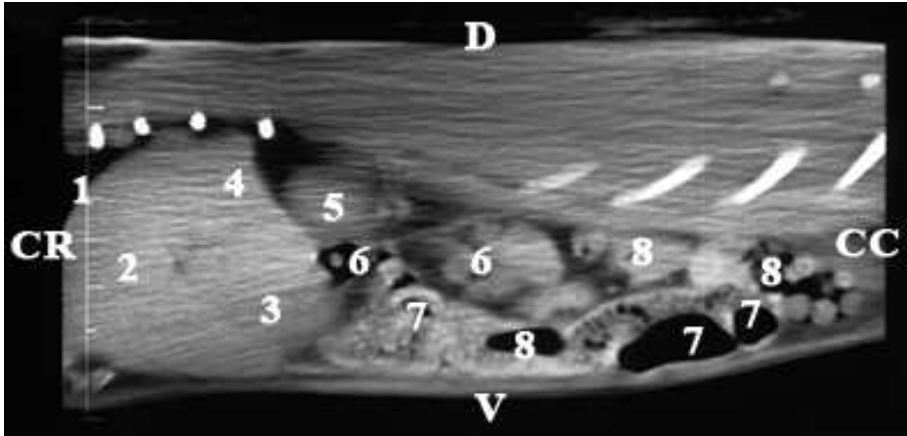
lobus hepatis sinister medialis *facies diaphragmatica*.

lobus caudatus

lobus hepatis dexter

. *Lobus caudatus*

lobus caudatus (. 37).



. 37. *cavum abdominis*

, 20 mm . CR – , CC – ,
 D – , V – . (1) *diaphragma*; (2) *lobus hepatis dexter*; (3)
lobus hepatis sinister medialis; (4) *lobus caudatus*; (5) *ren dexter*; (6)
duodenum; (7) *caecum*; (8) *jejunum*.

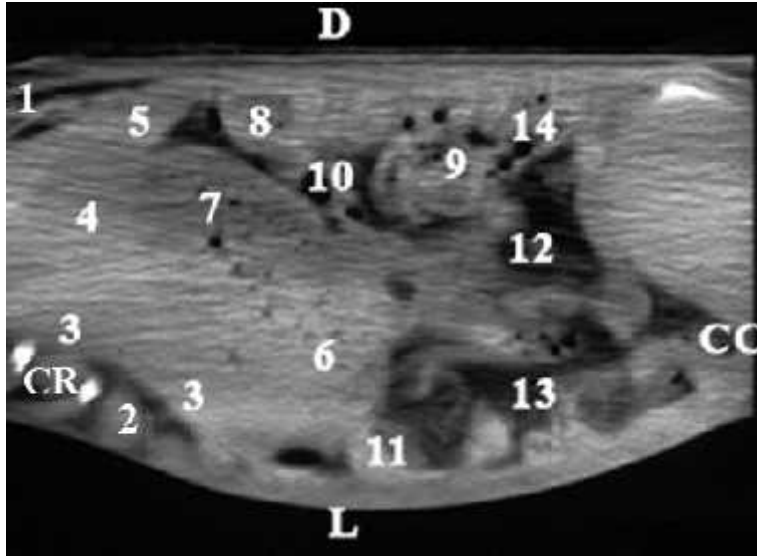
regio abdominis

, 15 mm
 , *lobus hepatis dexter* *lobus*
hepatis sinister
 .
lobus hepatis sinister, - *lobus hepatis*
dexter.

. *Lobus hepatis*
sinister *fundus ventriculi* *facies visceralis*.

corpus ventriculi *fundus ventriculi*.
Lobus caudatus

(. 38).



. 38. () regio abdominis,
 , 15 mm . CR –
 , CC – , L- ; D - . (1) diaphragma; (2) lobus
hepatis sinister lateralis; (3) lobus hepatis sinister medialis; (4) lobus hepatis
dexter; (5) proc. caudatus; (6) fundus ventriculi; (7) corpus ventriculi; (8) ren
dexter; (9) caecum; (10) duodenum; (11) ren sinister; (12) colon ascendens;
 (13) colon descendens; (14) jejunum.

30 mm

v. cava caudalis

lobus hepatis dexter.

45

mm

lobus hepatis dexter

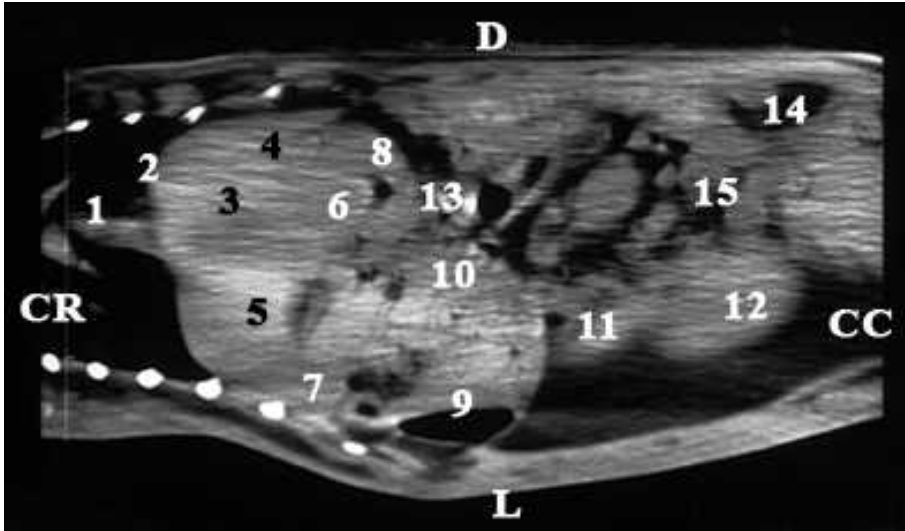
. *Lobus hepatis sinister medialis*

lobus hepatis sinister lateralis *facies diaphragmatica. Lobus*

hepatis sinister lateralis *fundus et corpus*

ventriculi. margo dorsalis

(. 49).



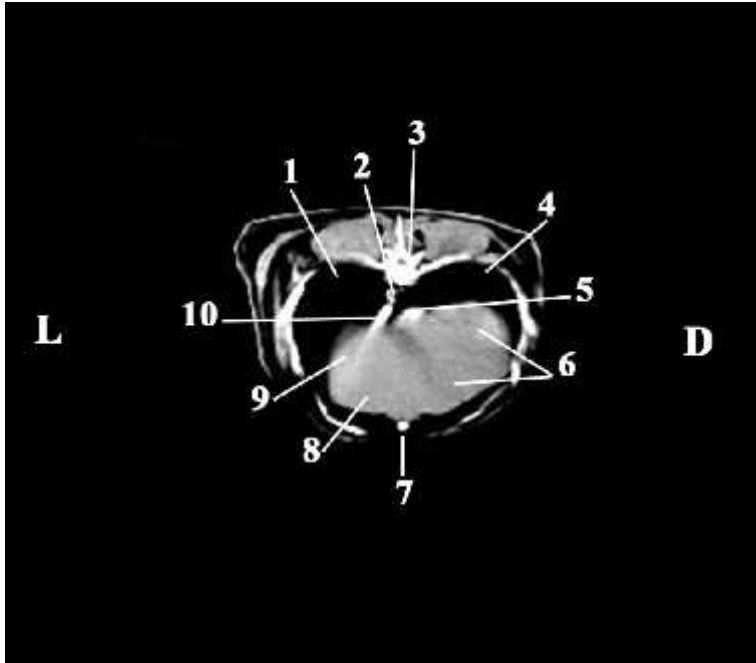
. 49. () regio abdominis,
 , 45 mm . (1)
 oesophagus; (2) diaphragma; (3) lobus hepatis dexter; (4) lobus caudatus;
 (5) lobus hepatis sinister medialis; (6) proc. caudatus; (7) lobus hepatis
 sinister lateralis; (8) ren dexter; (9) fundus ventriculi; (10) corpus ventriculi;
 (11) ren sinister; (12) colon descendens; (13) duodenum; (14) caecum; (15)
 jejunum.

regio abdominis cranialis

Th7

. lobus hepatis medialis, lobus hepatis
 sinister lateralis .

, - v. cava caudalis (. 50).



. 50. *regio abdominis cranialis* . (L - , D -
). (). (1) *pulmo sinister*; (2) *aorta abdominalis*; (3) *Th7*; (4) *pulmo dexter*; (5) *v. cava caudalis*; (6) *lobus hepatis dexter*; (7) *sternum*; (8) *lobus hepatis sinister medialis*; (9) *lobus hepatis sinister lateralis*; (10) *oesophagus*.

Th8,

. *Lobus hepatis dexter, lobus hepatis sinister medialis lobus hepatis sinister lateralis*

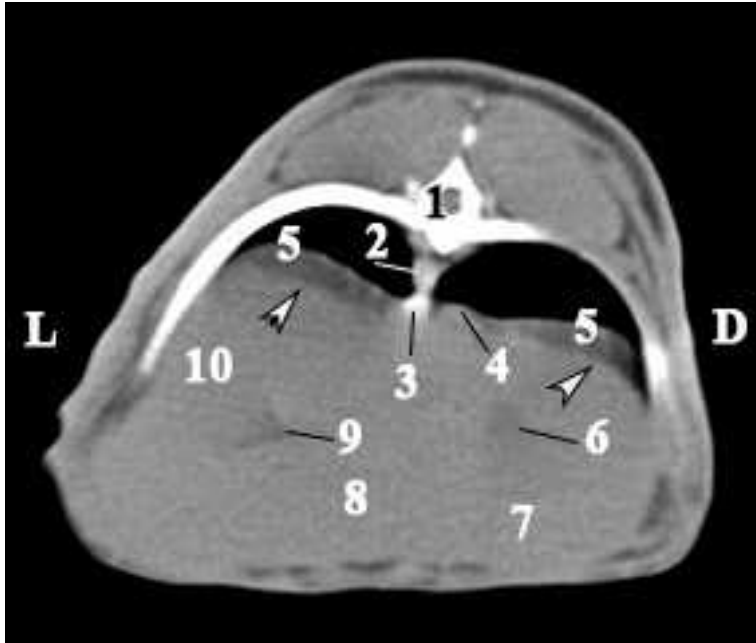
. *Vesica fellea* ,

Th8

, *margo dorsalis*

(.

51).



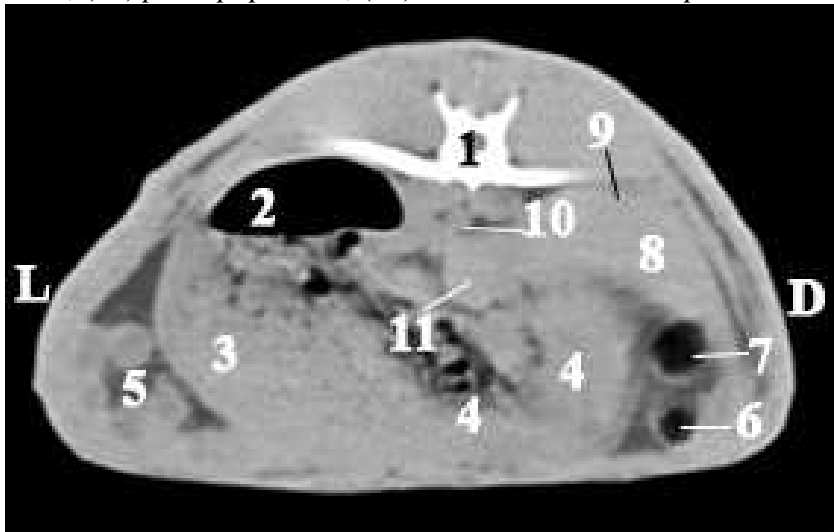
. 51. *regio abdominis cranialis,*
 (W). (L - , D -). ()
). (1) *Th8*; (2) *aorta abdominalis*; (3) *oesophagus*; (4) *v. cava caudalis*; (5) *diaphragma*; () - *margo dorsalis*; (6) *vesica fellea*; (7) *lobus hepatis dexter*; (8) *lobus hepatis sinister medialis*; (9) *fissura inetrlobaris*; (10) *lobus hepatis sinister lateralis*.

Th12 Th13

()
 . *lobus hepatis dexter* *pars cranialis*
duodeni. *lobus hepatis dexter*
v. cava caudalis. Proc. papillaris
curvatura
ventriculi minor (. 52 . 53).



. 52. *regio abdominis cranialis*. (L - , D -).
 (). (1) *Th12*; (2) *fundus ventriculi*; (3) *corpus ventriculi*; (4) *pars pylorica*; (5) *jejunum*; (6) *pars cranialis duodeni*; (7) *colon ascendens*; (8) *lobus hepatis dexter*; (9) *aorta abdominalis*; (10) *v. cava caudalis*; (11) *proc. papillaris*; (12) *lobus caudatus et impressio renalis*.



. 53. *regio abdominis cranialis*. (L - , D -).
 (). (1) *Th13*; (2) *fundus ventriculi*; (3) *corpus ventriculi*; (4) *pars pylorica*; (5) *jejunum*; (6) *colon ascendens*; (7) *pars cranialis duodeni*; (8) *lobus hepatis dexter*; (9) *lobus caudatus*; (10) *aorta abdominalis*; (11) *proc. papillaris*.

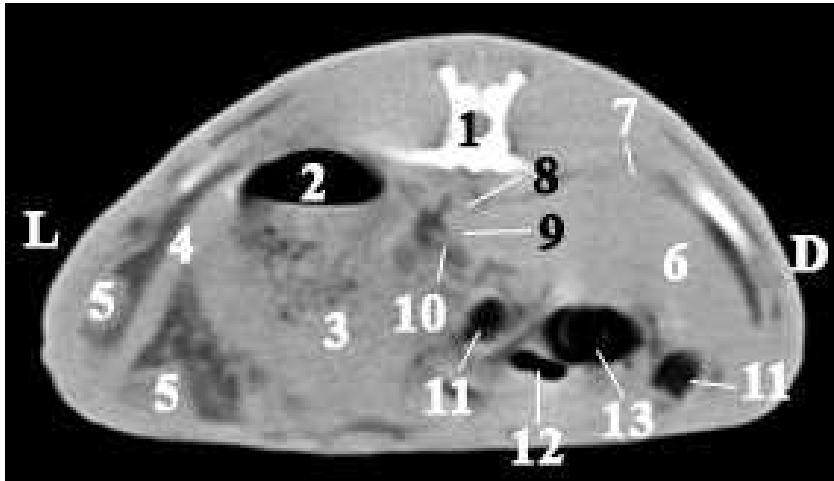
L1 *proc. papillaris*

. *Lobus hepatis dexter*
colon ascendens

.
corpus ventriculi.

lobus hepatis dexter lobus caudatus

(. 54).



. 54. *regio abdominis cranialis* (L - , D -).
(). (1) *L1*; (2) *fundus ventriculi*; (3) *corpus ventriculi*; (4) *lien*; (5) *jejunum*; (6) *lobus hepatis dexter lobus caudatus*; (7) *proc. caudatus*; (8) *aorta abdominalis*; (9) *proc. papillaris*; (10) *pancreas*; (11) *colon ascendens*; (12) *pars cranialis duodeni*; (13) *caecum*.

IV. 2. 4. MRI

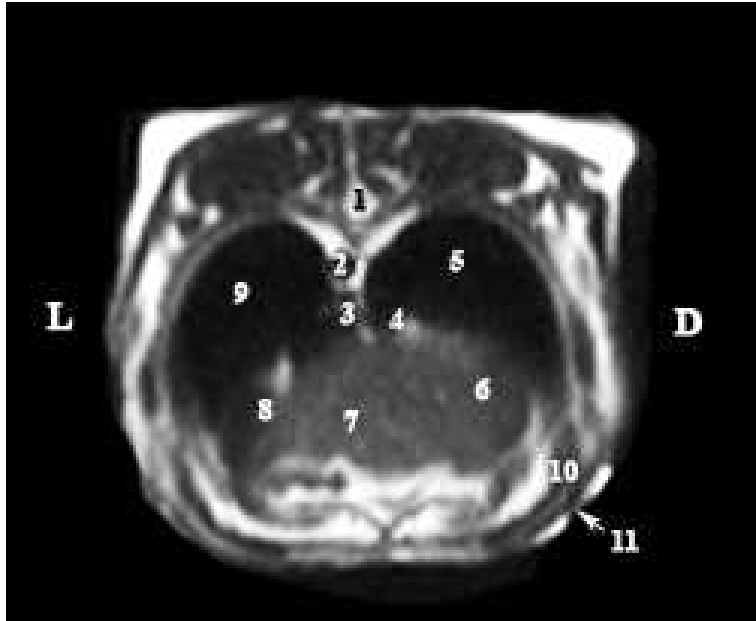
MRI (2)
Th7 ,
, *v. cava*
caudalis . 2

. *Lobus hepatis sinister medialis*

lobus hepatis

sinister lateralis.

Th7 (. 55).



. 55. MRI *regio abdominis cranialis* () . L – ; D – . (1) *Th7*; (2) *aorta abdominalis*; (3) *oesophagus*; (4) *v. cava caudalis*; (5) *pulmo dexter*; (6) *lobus hepatis dexter*; (7) *lobus hepatis sinister medialis*; (8) *lobus hepatis sinister lateralis*; (9) *pulmo dexter*; (10) *m. transversus abdominis*; (11) *mm. obliquus externus et internus abdominis*.

MRI Th9 (2) ,

. *Lobus hepatis dexter* , *lobus hepatis sinister lobus*

hepatis sinister medialis lobus hepatis sinister lateralis

. *Lobus hepatis sinister lateralis*

(

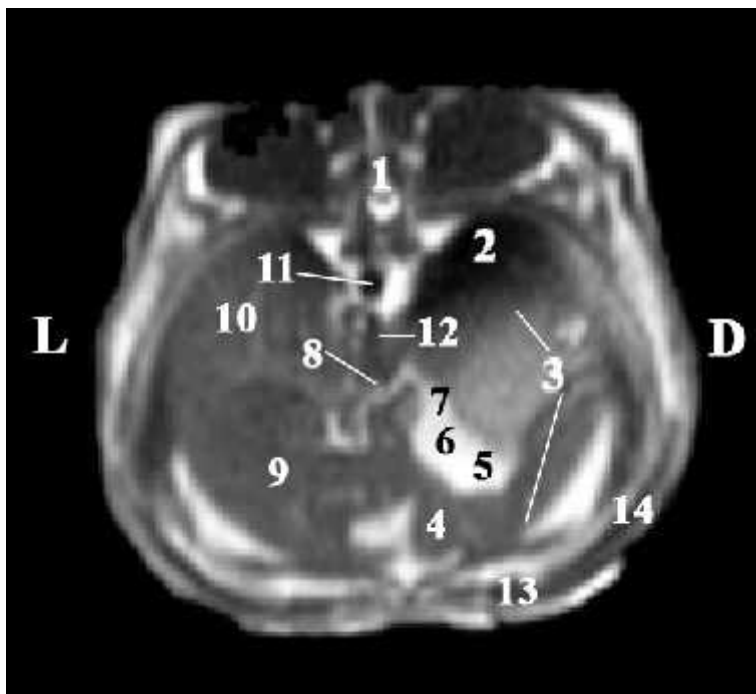
). *Vesica fellea* ,

().

lobus quadratus,

. *Ductus cysticus*

(.56).



.56. MRI *regio abdominis cranialis* (). L – ; D – . (1) *Th9*; (2) *pulmo dexter*; (3) *lobus hepatis dexter*; (4) *lobus quadratus*; (5) *fundus vesicae felleae*; (6) *corpus vesicae felleae*; (7) *collum vesicae felleae*; (8) *ductus cysticus*; (9) *lobus hepatis sinister medialis*; (10) *lobus hepatis sinister lateralis* (11) *aorta abdominalis*; (12) *v. cava caudalis*; (13) *m. transversus abdominis*; (14) *mm. obliquus externus et internus abdominis*.

regio abdominis

10 mm *lobus hepatis sinister medialis*

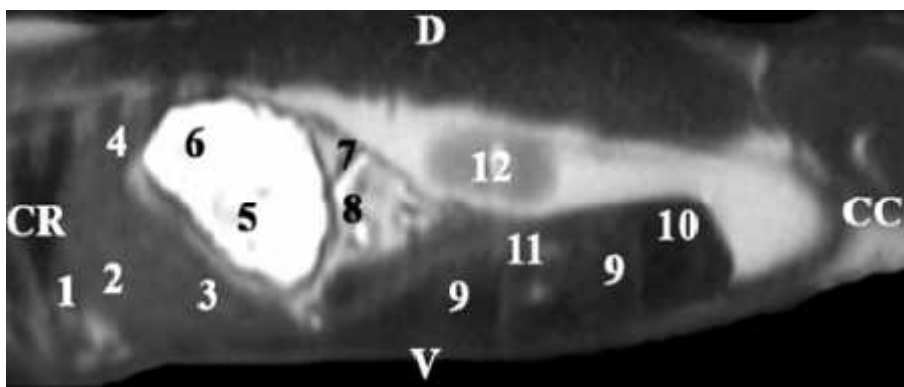
().

lobus hepatis sinister lateralis,

. Lobus hepatis sinister medialis et lateralis

. Proc. papillaris

fundus ventriculi (.57).



.57.

MRI *regio abdominis*

10 mm

. CR – , CC – , D

– , V – . (1) *diaphragma*; (2) *lobus hepatis sinister medialis*; (3) *lobus hepatis sinister lateralis*; (4) *proc. papillaris*; (5) *corpus ventriculi*; (6) *fundus ventriculi*; (7) *lien*; (8) *jejunum*; (9) *caecum*; (10) *colon ascendens*; (11) *duodenum*; (12) *ren sinister*.

, 20 mm *lobus hepatis*

sinister medialis, lobus hepatis sinister lateralis proc. papillaris

(

fundus et corpus ventriculi). Lobus hepatis sinister medialis lobus hepatis sinister lateralis facies diaphragmatica. Proc. papillaris fundus ventriculi.

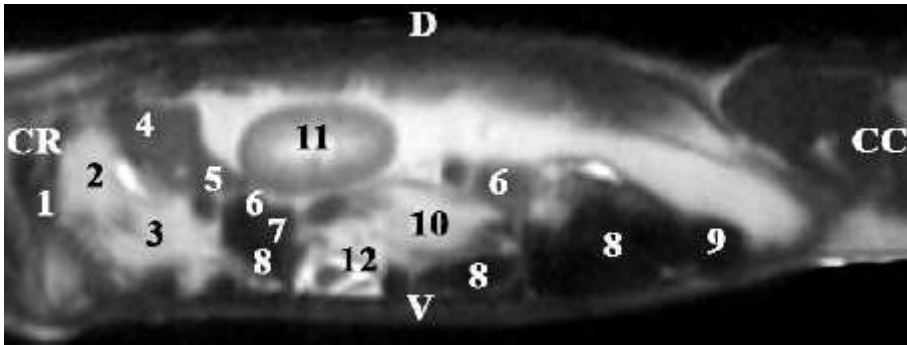
, 10 mm , *lobus hepatis dexter fundus et corpus ventriculi.*

2

. *Proc papillaris*

fundus ventriculi. Proc. caudatus

(.56).



.56. MRI regio abdominis

10 mm

. CR –
 , CC – , D – , V – . (1) lobus hepatis
dexter; (2) *fundus ventriculi*; (3) *corpus ventriculi*; (4) *proc. papillaris*; (5)
proc. caudatus; (6) *pars cranialis duodeni*; (7) *colon ascendens*; (8) *caecum*;
 (9) *vesica urinaria*; (10) ; (11) *ren dexter*, (12)

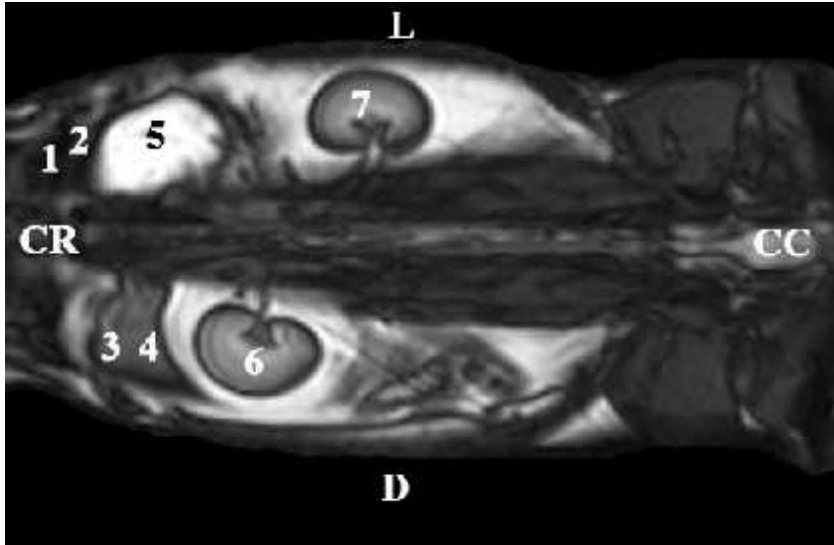
15 mm

lobus hepatis dexter

. *Lobus caudatus*

lobus hepatis sinister,

(.57).



.57. MRI regio abdominis, (T1-
 15 mm (CR ; CC). (1) diaphragma; (2) lobus hepatis sinister;
 (3) lobus hepatis dexter; (4) lobus caudatus proc. caudatus; (5) fundus
 ventriculi; (6) ren dexter; (7) ren sinister.

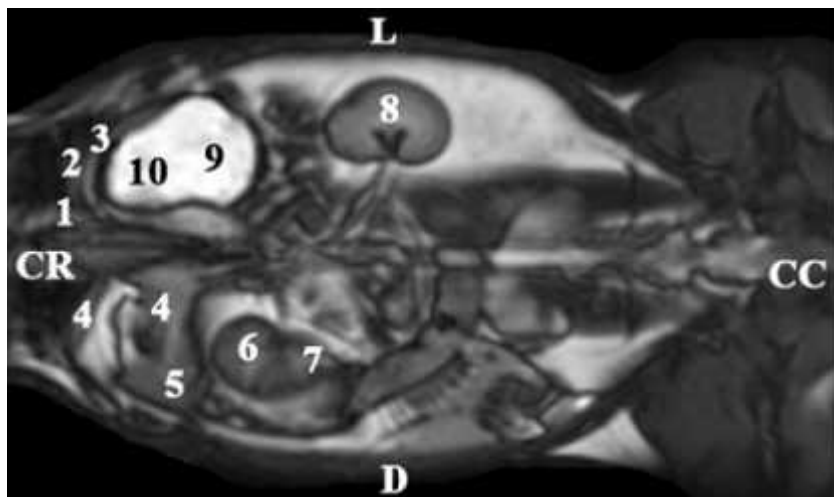
30 mm

lobus hepatis dexter

lobus caudatus. Proc. caudatus

. Lobus hepatis sinister medialis

lobus hepatis sinister lateralis (facies diaphragmatica) (.58).



. 58. MRI *regio abdominis*, (T1-
 30 mm (CR ; CC ; D ; L). (1) *diaphragma*; (2) *lobus hepatis sinister medialis*; (3) *lobus hepatis sinister lateralis*; (4) *lobus hepatis dexter*; (5) *proc. caudatus*; (6) *ren dexter*; (7) *duodenum*; (8) *ren sinister*; (9) *corpus ventriculi*; (10) *fundus ventriculi*.

45 mm

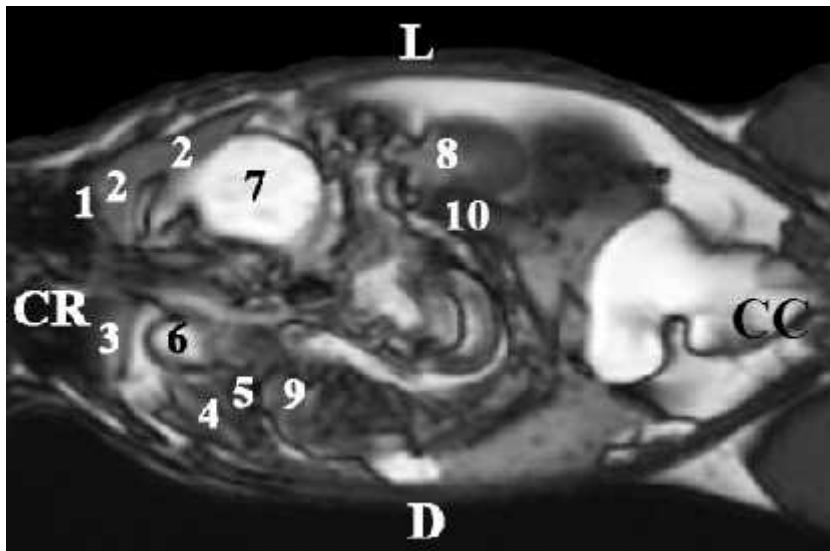
, *lobus hepatis dexter lobus hepatis sinister*,

. *Lobus hepatis dexter pars pylorica*.

corpus ventriculi.

lobus caudatus

(. 59).

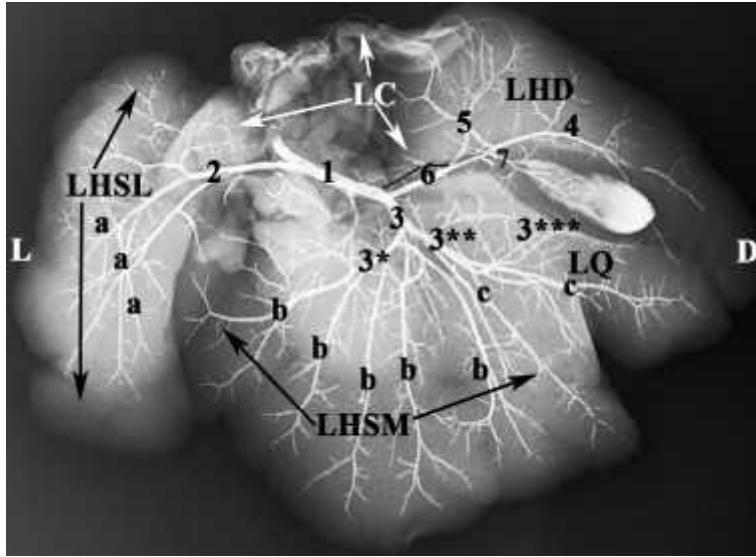


. 59. MRI *regio abdominis*, (T1-
 45 mm (CR ; D ; L). (1) *diaphragma*; (2) *lobus hepatis sinister medialis*; (3) *lobus hepatis dexter*; (4) *lobus caudatus* (5)

; (6) *pars pylorica*; (7) *corpus ventriculi*; (8) *ren sinister*; (9) *ren dexter*; (10) *jejunum*.

IV. 3.

ductus hepaticus communis, *ductus hepaticus dexter*, *lobus hepatis dexter*, *ductus hepaticus sinister caudalis*, *ductus hepaticus communis*, *lobus hepatis sinister lateralis*. *Ductus hepaticus sinister*, *lobus hepatis sinister medialis*, *lobus hepatis dexter*, *lobus hepatis sinister medialis*, *ductus hepaticus sinister*, *lobus hepatis sinister medialis*, *fossa vesicae felleae*, *lobus hepatis sinister medialis*, *lobus quadratus*, *ductus cysticus*, *vesica fellea*. *Lobus caudatus* (. 60).



. 60.

(LHSL - lobus hepatis sinister lateralis; LHSM - lobus hepatis sinister medialis; LQ - lobus quadratus; LHD - lobus hepatis dexter; LC - lobus caudatus). (1) ductus hepaticus communis; (2) ductus hepaticus sinister caudalis; (a) ductus hepaticus sinister caudalis; (3) ductus hepaticus sinister; (3*) ductus hepaticus sinister; (3**) ductus hepaticus sinister; (3***) fossa vesicae felleae; (b) ductus hepaticus sinister; (c) lobus hepatis sinister medialis; (4) ductus hepaticus dexter; (5) lobus caudatus; (6) ; (7) ductus cysticus.

ductus hepaticus communis .

. Ductus hepaticus sinister caudalis

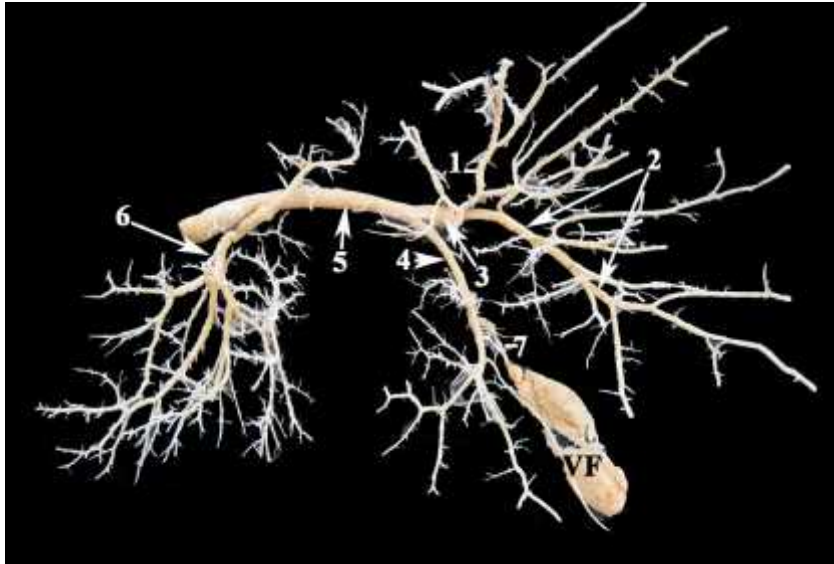
. Ductus hepaticus sinister ductus

hepaticus dexter .

lobus

caudatus. Ductus cysticus

(.61).



. 61.

(1) *lobus caudatus*; (2) *ductus hepaticus dexter*; (3) *ductus hepaticus sinister*; (4) *ductus hepaticus sinister*; (5) *ductus hepaticus communis*; (6) *ductus hepaticus sinister caudalis*.

: *a. hepatica propria*

a. hepatica communis. A. hepatica propria

a. hepatica propria. A. hepatica sinistra et dextra

. *A. hepatica sinistra*

lobus hepatis sinister lateralis - a.

hepatica sinistra caudalis.

lobus hepatis sinister

medialis, a. hepatica sinistra

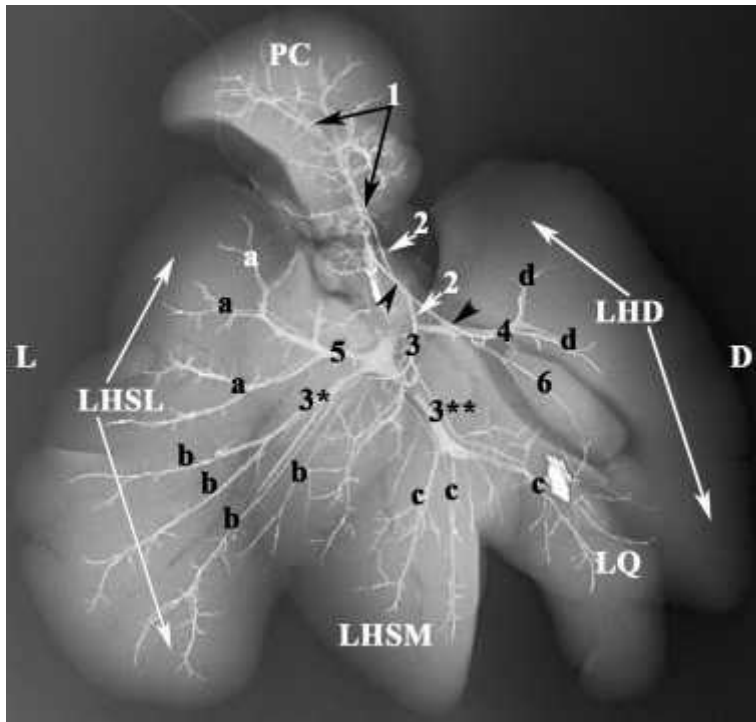
A. hepatica dextra

lobus caudatus

a.

hepatica propria. A. cystica

a. hepatica communis (. 62).



. 62.

. (LHSL - lobus hepatis sinister lateralis; LHSM - lobus hepatis sinister medialis; LQ - lobus quadratus; LHD - lobus hepatis dexter; PC - proc. caudatus). (1) *a. hepatica propria*; (2) *a. hepatica communis*; (3) *a. hepatica sinistra*; (3*) *a. hepatica sinistra*; (3**) *a. hepatica sinistra* (4) *a. hepatica dextra*; (5) *a. hepatica sinistra caudalis*; (6) *a. cystica*; (a) *a. hepatica communis*; (a) *a. hepatica sinistra caudalis*; (b) *a. hepatica sinistra*; (c) *a. hepatica sinistra*; (d) *a. hepatica dextra*.

, v. portae

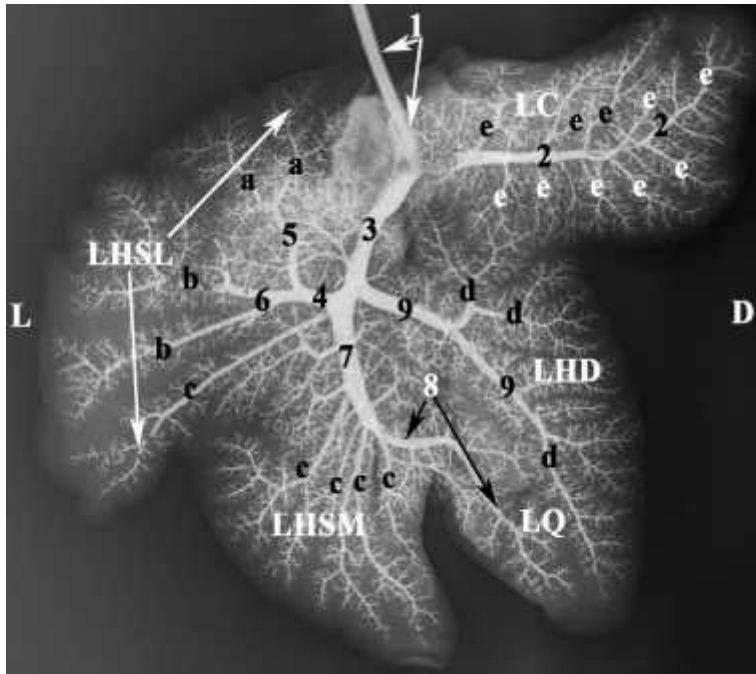
, lobus caudatus.

lobus caudatus

lobus hepatis

dexter lobus hepatis sinister,

- v. portae dextra v. portae sinistra. V.
 portae sinistra .
 lobus hepatis sinister lateralis, a -
 lobus hepatis sinister medialis. V. portae sinistra caudalis
 v. portae sinistra (. 63).



. 63. v. portae.
 (LHSL - lobus hepatis sinister lateralis; LHSM - lobus hepatis sinister
 medialis; LQ - lobus quadratus; LHD - lobus hepatis dexter; LC - lobus
 caudatus). (1) v. portae; (2) v. portae lobus caudatus; (3)
 ; (4) v. portae sinistra; (5) v. portae sinistra caudalis;
 (6) v. portae sinistra; (7) v.
 portae sinistra; (8) v. portae sinistra; (9) v. portae dextra;
 (a) v. portae sinistra caudalis; (b)
 v. portae sinistra; (c) v. portae sinistra; (d) v. portae
 sinistra; (d) v. portae dextra.
 ,
 v. portae.
 . V. portae sinistra

caudalis

v. portae sinistra.

, *v.*

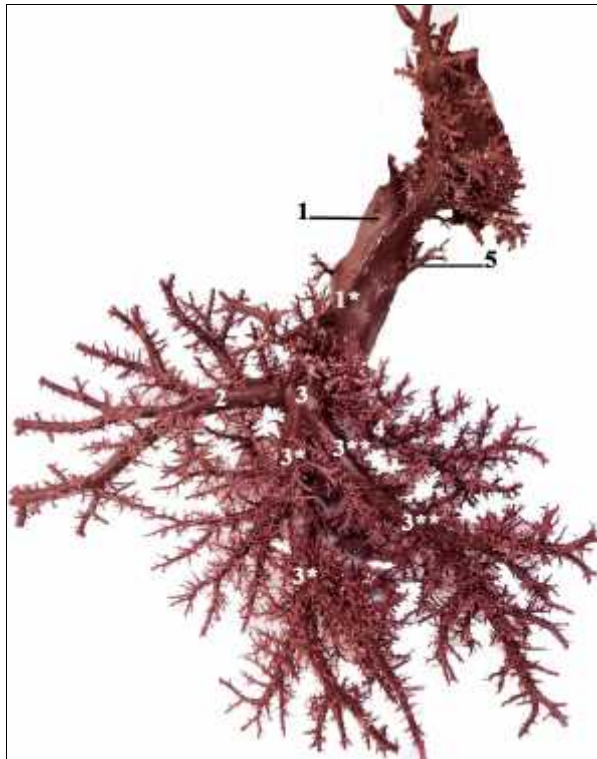
portae dextra

.

,

v. portae

lobus caudatus (. 64).



. 64.

v. portae. (1) *v. portae*; (1*)

; (2) *v. portae sinistra caudalis*; (3) *v. portae sinistra*;

(3*)

v. portae sinistra; (3**) *v. portae*

v. portae

sinistra; (4) *v. portae dextra*; (5)

v. portae lobus caudatus.

,

: *v. hepatica*

sinistra caudalis, v. hepatica sinistra, v. hepatica dextra, v. hepatica media

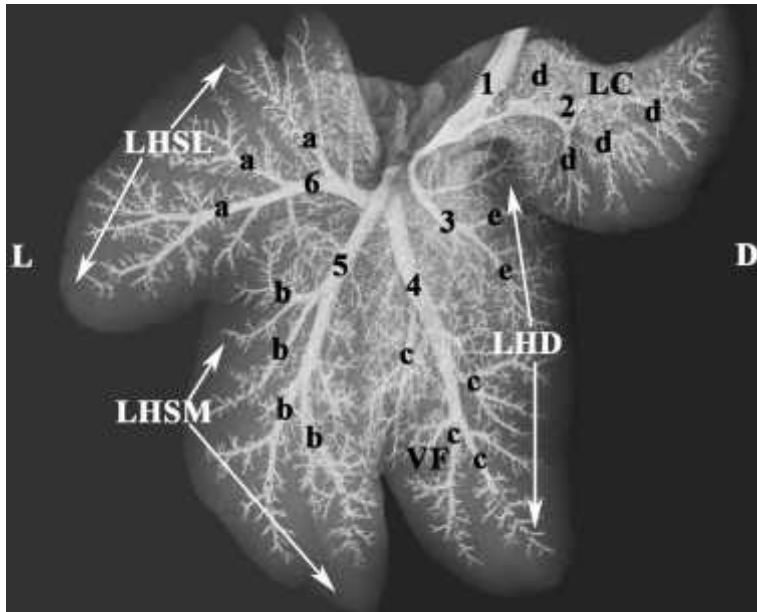
lobus caudatus. Vv. hepaticae

v.

cava caudalis. Lobus caudatus

,

sinister lateralis . *Lobus hepatis*
v. hepatica sinistra caudalis.
v. hepatica sinistra
lobus hepatis sinister medialis. lobus hepatis dexter
v. hepatica media v. hepatica dextra. V. hepatica media
lobus hepatis dexter
v. hepatica
dextra (. 65).



. 65. vv.
hepaticae. (LHSL - *lobus hepatis sinister lateralis*; LHSM - *lobus hepatis sinister medialis*; VF - *vesica fellea*; LHD - *lobus hepatis dexter*; LC - *lobus caudatus*). (1) *v. cava caudalis*; (2) *lobus caudatus*; (3) *v. hepatica dextra*; (4) *v. hepatica media*; (5) *v. hepatica sinistra*; (6) *v. hepatica sinistra caudalis*; (a) *v. hepatica sinistra caudalis*; (b) *v. hepatica sinistra*; (c) *v. hepatica media*; (d) *v. hepatica dextra*; (e) *lobus caudatus*.

(. 66).



. 66. *vv. hepaticae.* (VF-vesica fellea). (1) *v. cava caudalis*; (2) *lobus caudatus*; (3) *v. hepatica sinistra caudalis*; (4) *v. hepatica sinistra*; (5) *v. hepatica media*; (6) *v. hepatica dextra*.

V.

1. :
lobus hepatis dexter, lobus hepatis sinister medialis, lobus hepatis sinister lateralis, lobus quadratus, lobus caudatus.

2. US
US ,
US . *Lobus hepatis sinister lateralis* - 2D US

3. 2D US

4. 3D US

US ,

5. Doppler US

Doppler US

6. CT

, *lobus hepatis dexter* , *lobus hepatis sinister* . CT
Th7 L1.

7. MRI

2,

1,

8.

– *a. hepatica propria* a. *hepatica communis*.

VI.

1.

2.

3.

4.

1.

2.

3.

VII.

CT

, -
, ,
, ,
.



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VIII.

1. , „ , „ , „ , „ , „ , 2010.

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(, , ,)
-)
regio abdominis cranialis, .

2D US

US

2D US

- 3D US,

Doppler US

CT

MRI

CT

a. hepatica communis.

- *a. hepatica propria*

ductus hepaticus communis.

v. portae

SUMMARY

During the last years the non-invasive imaging methods (ultrasound, Doppler ultrasound, computed tomography and magnetic resonance) have been widespread for visualization of the small mammals' organs from cranial abdominal region incl. liver. The literary data which concern the alive anatomical visualization of the rabbit liver are scarce. So, our attention has been provoked to deepen the studies on the alive anatomical localization of the liver and its lobes using imaging anatomical methods.

When use 2D ultrasound, the anatomical images have been obtained in different planes. We presented imaging anatomical data for the rabbit liver localization.

The histosonographic data demonstrated correspondence between the brightness and sharpness of the organ's images and its histological features.

2D sonographic study has been added by 3D ultrasound. The liver has been presented in three geometric planes.

By colour Doppler ultrasound, we obtained a real visualization of the rabbit liver blood and biliary vessels. Their anatomical image has been connected with the variations of the colour Doppler spectrum from blue to red gamma.

The images of the organ at axial and helical computed tomography were anatomical scans. The anatomical data, obtained on frozen cuts coincided with computed tomographic results.

Magnetic resonance imaging added and evaluated some of the results, obtained by the methods mentioned above. The images were in voxel based matrix, which contains information for the organ's lobes and its localization.

Postcontrast and corrosion study of the biliary vessels presented data for well-developed common hepatic duct in the rabbit.

The post mortal portography was suitable method for visualization of the portal vein and its tributaries in the liver.

By phlebography study, we obtained results for five veins in the rabbit liver.