

LYMPHGEFÄßSYSTEM DER BRUSTWAND, BAUCHWAND, BECKENGLIEDMAßE

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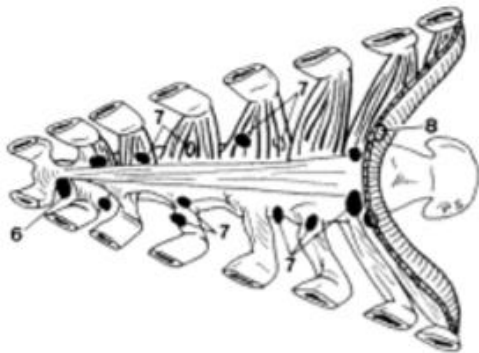
Lehrstuhl für Anatomie und Histologie

22. September 2020

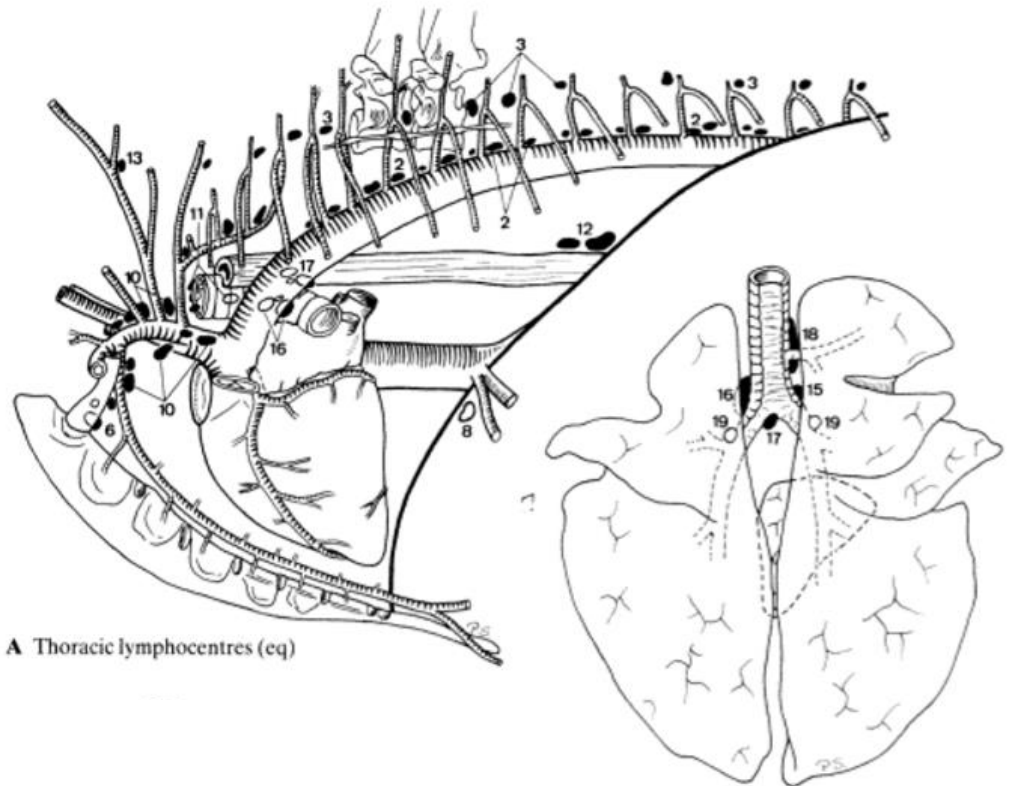
LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

im Brusthöhlenbereich existiert 4 Lymphozentren:

1. Lymphocentrum (Lc.) thoracicum dorsale
2. Lc. thoracicum ventrale
3. Lc. mediastinale
4. Lc. bronchiale



C Lymphocentrum thoracicum ventrale, dorsal aspect (bo)



A Thoracic lymphocentres (cq)

B Lymphocentrum bronchiale, dorsal aspect (cap)

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) thoracicum dorsale:

- für die Brustwand zuständig

setzt sich aus :

- a. der dorsalen und seitlichen Brustwand
- b. Schultergürtel
- c. anschließenden Bauchwand
- d. dem Zwerchfell
- e. dem Brustfell
- f. beim Rd., Pfd. aus Milz, Leber

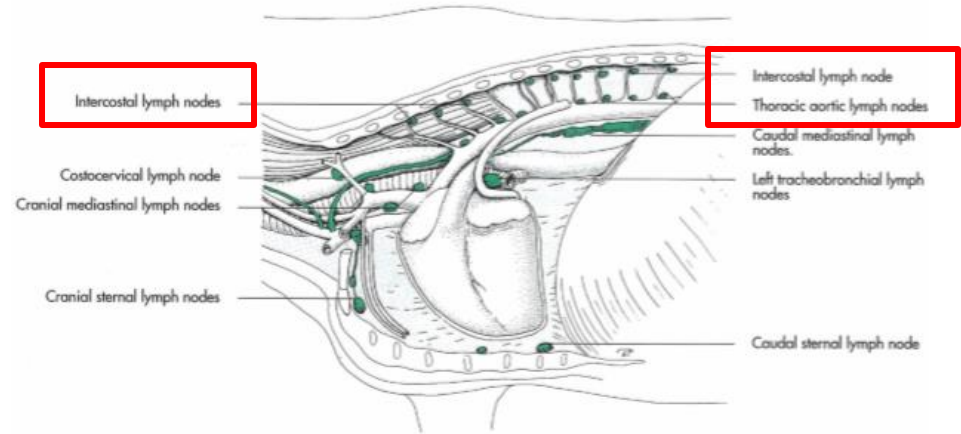


Fig. 13-10. Lymph nodes of the thorax of the ox, schematic [Najbrt, 1982].

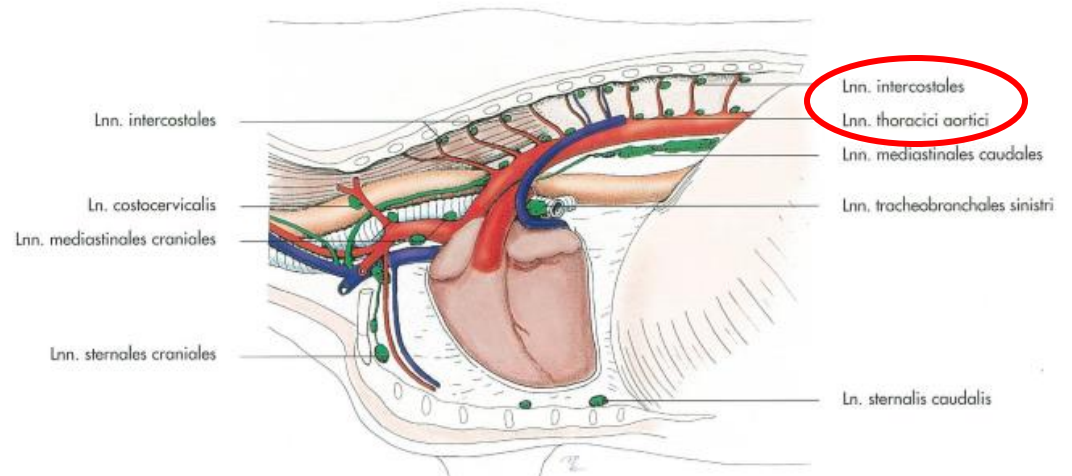


Abb. 13-10. Schematische Darstellung der Lymphknoten in der Brusthöhle des Rindes, nach Najbrt, 1982.

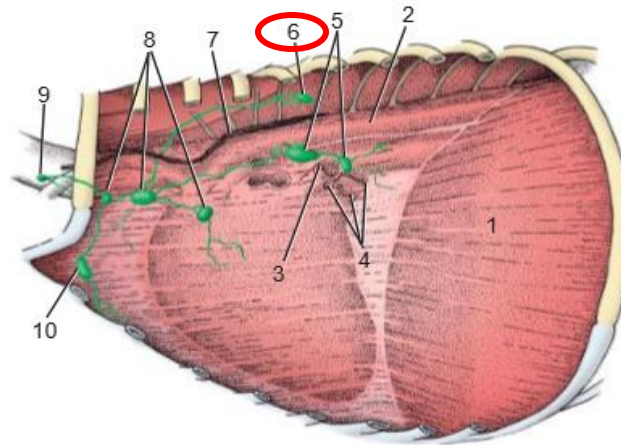
LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) thoracicum dorsale:

- zu diesem Lymphozentrum gehören zwei Lymphknotengruppen (dorsale Brustwandlymphknoten):

1. Nll. thoracici aortici

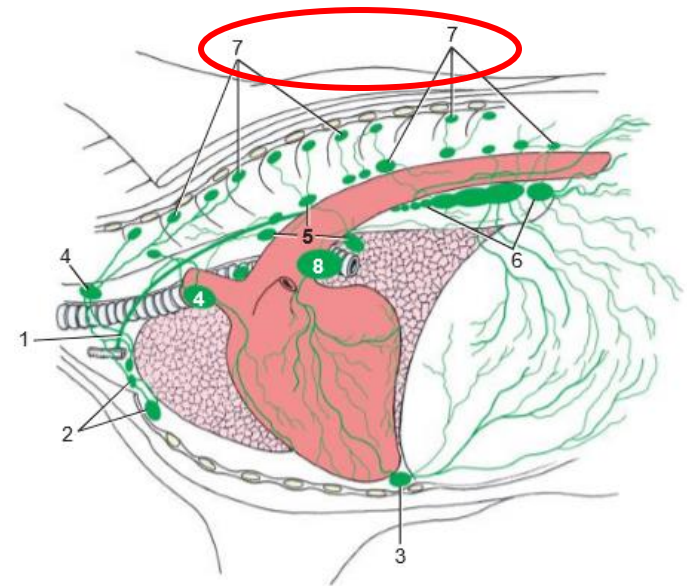
2. Nll. intercostales



Canine: Thoracic Lymph Nodes

1. Diaphragm
2. Thoracic aorta
3. Left bronchus
4. Pulmonary vessels
5. Tracheobronchial nodes
6. Intercostal node
7. Thoracic duct
8. Cranial mediastinal nodes
9. Caudal deep cervical node
10. Sternal node

Note: The left lung is removed. The outline of the heart is visible within the mediastinum.



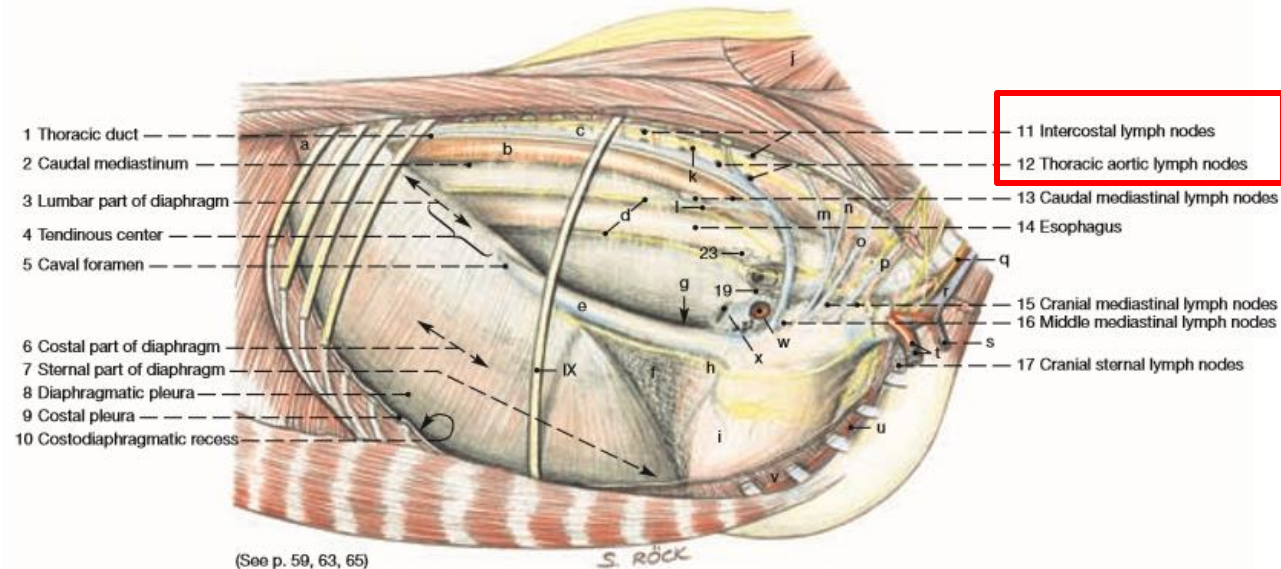
Bovine: Lymph Drainage,
Thoracic Wall, and Mediastinum

1. Thoracic duct
2. Cranial sternal lymph nodes
3. Caudal sternal lymph node
4. Cranial mediastinal lymph nodes
5. Middle mediastinal lymph nodes
6. Caudal mediastinal lymph nodes
7. Intercostal and thoracic aortic lymph nodes
8. Tracheobronchial node

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) thoracicum dorsale:

The Thoracic Cavity (right side) and the Lungs



- A Principal bronchus
- B Lobar bronchus
- C Segmental bronchus
- a Retractor costae
- b Aorta
- c Right azygous vein
- d Dorsal and ventral vagal trunks

- e Caudal vena cava
- f Caval fold
- g Mediastinal recess
- h Phrenic nerve
- i Pericardiac pleura
- j Semispinalis capitis
- k Intercostal vessels

- l Bronchoesophageal vessels
- m Supreme intercostal vessels
- n Dorsal scapular vessels
- o Deep cervical vessels
- p Vertebral vessels and nerve
- q Common carotid a. and vagosympathetic trunk

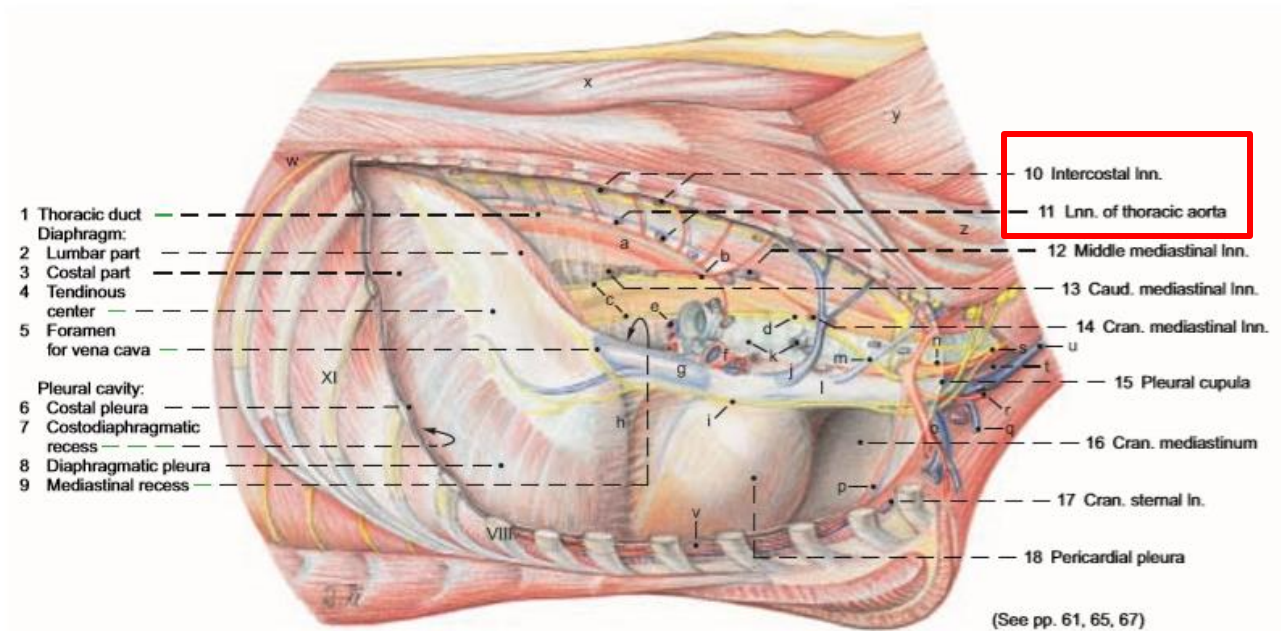
- r Ext. jugular vein
- s Cephalic vein
- t Axillary vessels
- u Int. thoracic vessels
- v Transversus thoracis
- w Pulmonary artery
- x Pulmonary veins

Eq.

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) thoracicum dorsale:

Right thoracic cavity and Lungs



Legend:

- | | | | | |
|--------------------------------|---------------------|---------------------------------|---|--|
| A Main bronchus | d Right vagus n. | j Right azygos v. | p Internal thoracic a. and v. | v Transverse thoracic m. |
| B Lobar bronchus | e Pulmonary vv. | k Trachea and tracheal bronchus | q Cephalic v. | w Retractor costae |
| C Segmental bronchus | f Pulmonary a. | l Cran. vena cava | r Supf. cervical a. and v. | x Spinalis et semispinalis cervicis et capitis |
| a Thoracic aorta | g Caud. vena cava | m Costocervical v. | s Vagosympathetic trunk | y Semispinalis capitis |
| b Bronchoesophageal a. | h Plica venae cavae | n Right recurrent laryngeal n. | t Common carotid a. and internal jugular v. | z Longissimus cervicis |
| c Dors. and vent. vagal trunks | i Phrenic n. | o Right subclavian a. and v. | u External jugular v. | |

Bo.

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) thoracicum dorsale:

1. Nll. thoracici aortici:

- subpleural neben der Aorta thoracica
- **fehlen dem Hund**
- beim Su, Bo, Eq werden fleischbeschaulich untersucht

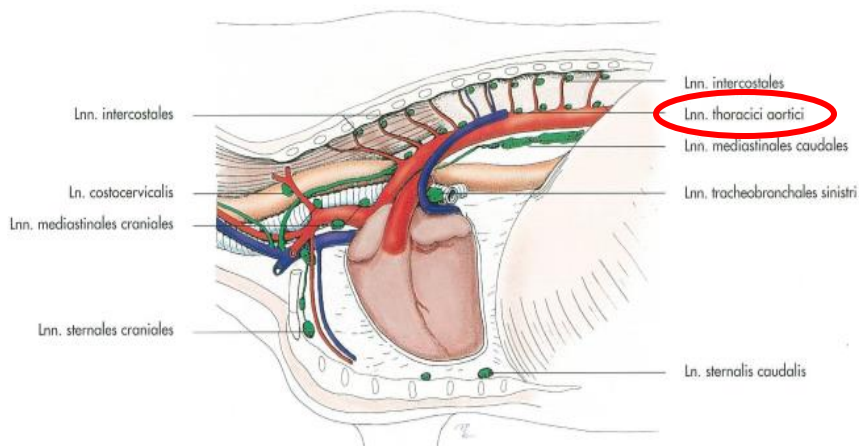
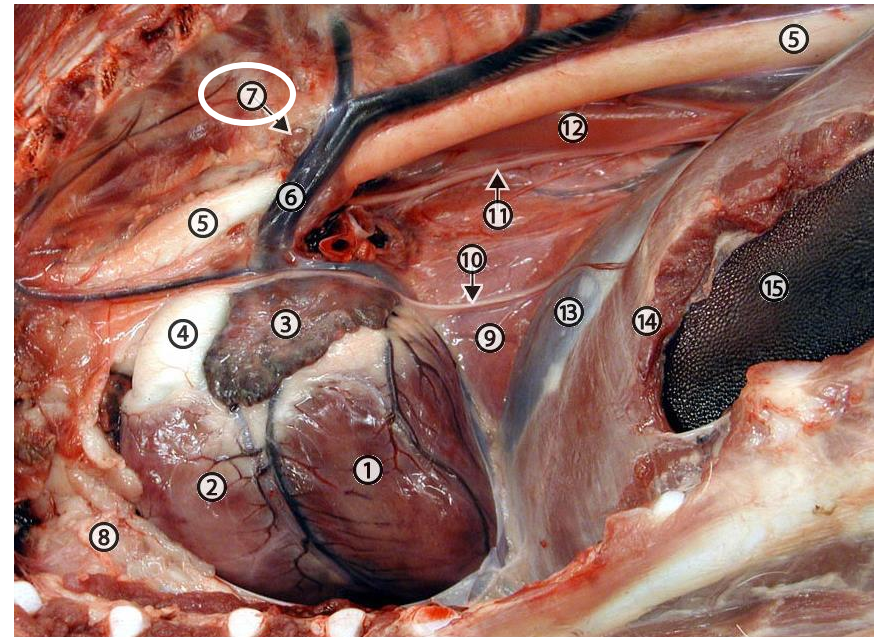


Abb. 13-10. Schematische Darstellung der Lymphknoten in der Brusthöhle des Rindes, nach Najbrt, 1982.



Porcine fresh tissue dissection, left side. 1, left ventricle; 2, right ventricle; 3, left atrium; 4, pulmonary trunk; 5, aorta; 6, azygous vein; 7, aortic lymph node; 8, thymus; 9, accessory lobe of right lung; 10, phrenic n.; 11, vagus n.; 12, esophagus; 13, central tendon of diaphragm; 14, costal muscular part of diaphragm; 15, spleen.

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) thoracicum dorsale:

1. Nll. thoracici aortici:

entsenden Ihre Vasa efferentia direkt:

- a. zum Ductus thoracicus oder
- b. zu den Mediastinallymphknoten

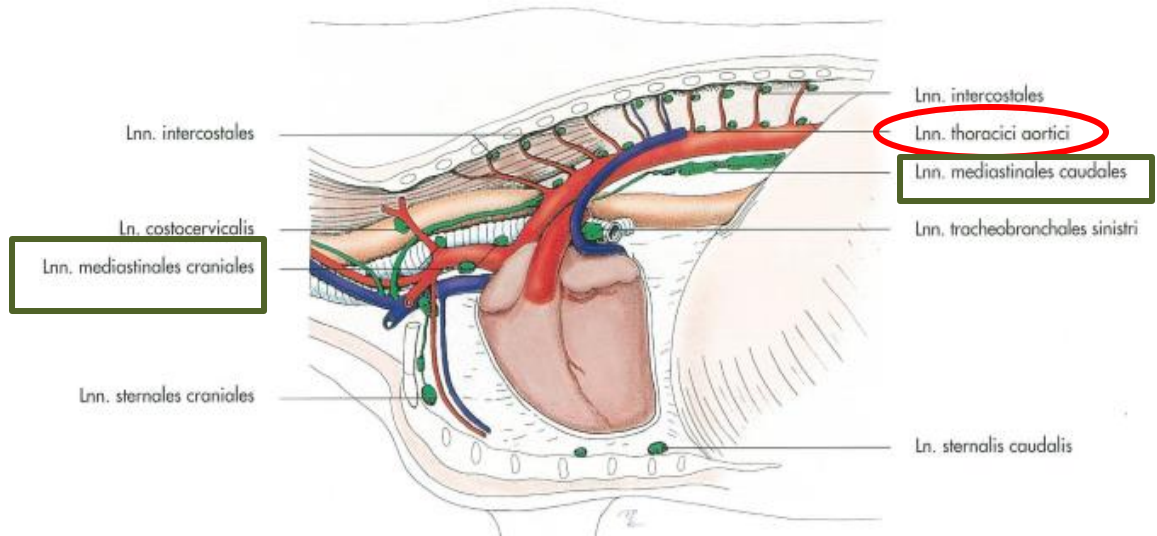
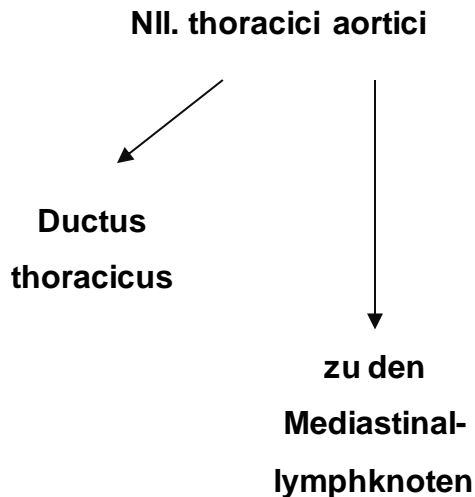


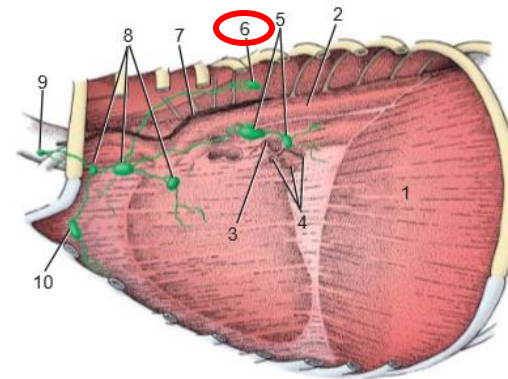
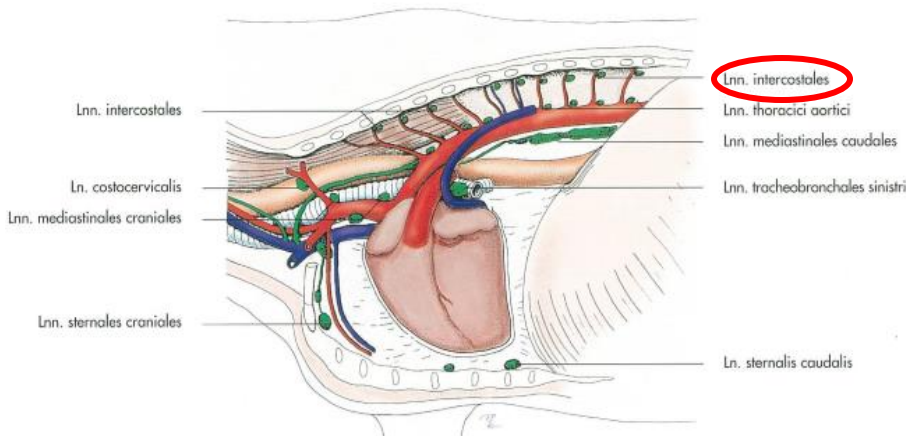
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LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) thoracicum dorsale:

2. NII. intercostales:

- liegen in der Nähe der Rippenköpfchen in den Interkostalräumen
- von Pleura und Fascia endothoracica bedeckt
- **beim Hund findet sich beiderseits nur ein NI. intercostalis im 5. oder 6. Interkostalraum**
- **beim Schwein fehlen**



Canine: Thoracic Lymph Nodes

1. Diaphragm
2. Thoracic aorta
3. Left bronchus
4. Pulmonary vessels
5. Tracheobronchial nodes
6. Intercostal node
7. Thoracic duct
8. Cranial mediastinal nodes
9. Caudal deep cervical node
10. Sternal node

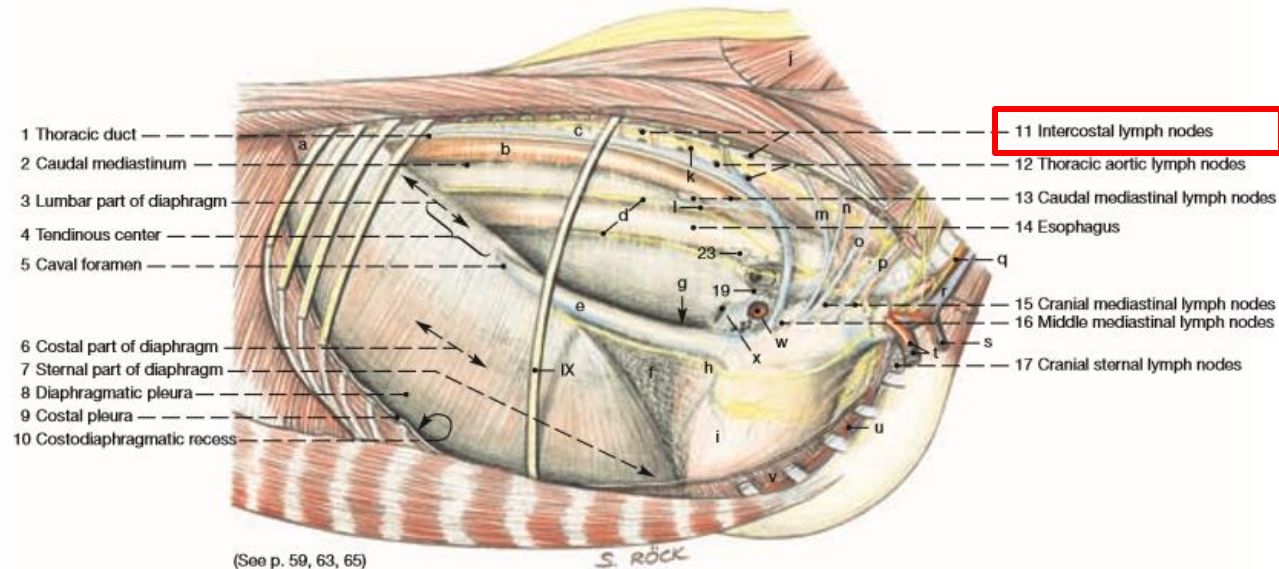
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LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) thoracicum dorsale:

The Thoracic Cavity (right side) and the Lungs



- A Principal bronchus
- B Lobar bronchus
- C Segmental bronchus
- a Retractor costae
- b Aorta
- c Right azygous vein
- d Dorsal and ventral vagal trunks

- e Caudal vena cava
- f Caval fold
- g Mediastinal recess
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- k Intercostal vessels

- l Bronchoesophageal vessels
- m Supreme intercostal vessels
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- p Vertebral vessels and nerve
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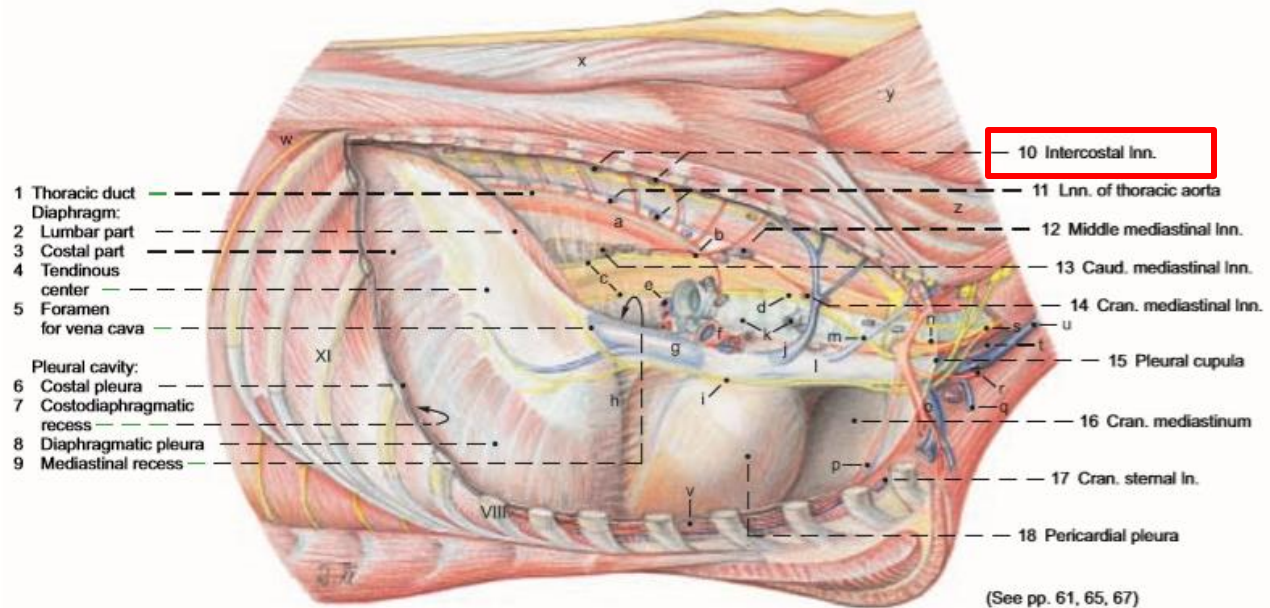
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LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) thoracicum dorsale:

Right thoracic cavity and Lungs



Legend:

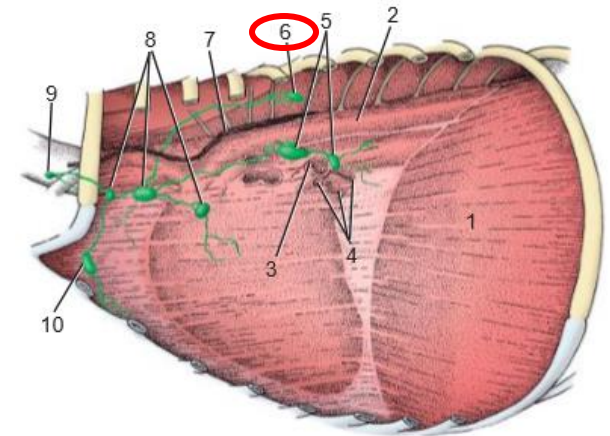
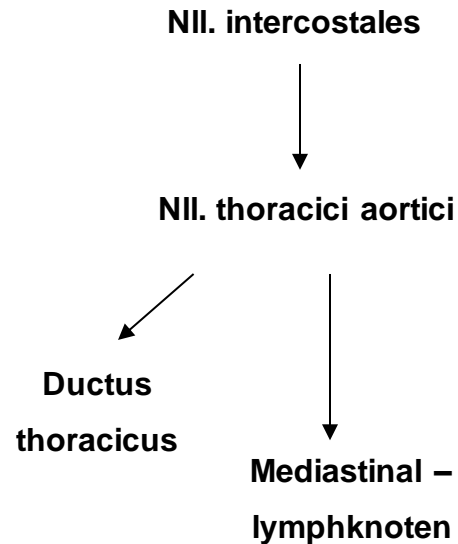
- | | | | | |
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LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) thoracicum dorsale:

2. Nll. intercostales:

- ihre efferente Lymphgefäße führen zu den Nll. thoracici aortici



Canine: Thoracic Lymph Nodes



1. Diaphragm
2. Thoracic aorta
3. Left bronchus
4. Pulmonary vessels
5. Tracheobronchial nodes
6. Intercostal node
7. Thoracic duct
8. Cranial mediastinal nodes
9. Caudal deep cervical node
10. Sternal node

Note: The left lung is removed. The outline of the heart is visible within the mediastinum.

LYMPHGEFÄßSYSTEM DER BRUTTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) thoracicum ventrale:

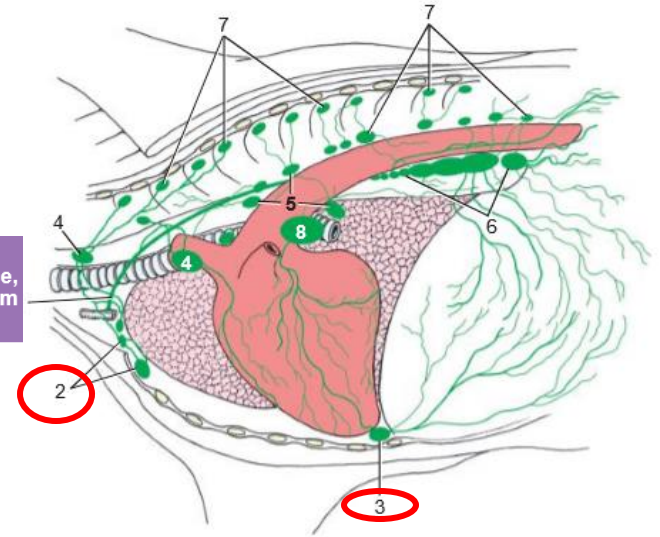
- zum tributären Gebiet gehören:

- a. die seitliche und ventrale Brustwand
- b. das Schultergürtel
- c. die ventrale Bauchdecke
- d. das Zwerchfell
- e. das Brustfell
- f. Mittelfellspalt
- g. beim Pfd. , Flfr., Schw. oberflächliche Lymphbahnen der Leber
- h. fleischbeschauliche Untersuchung angezeigt ist



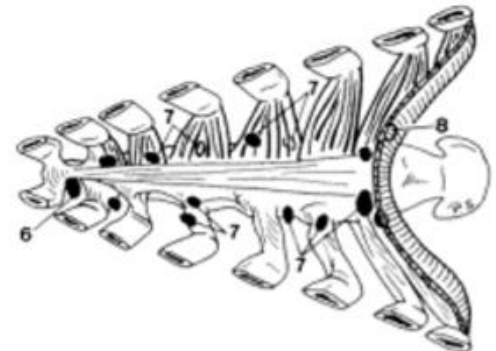
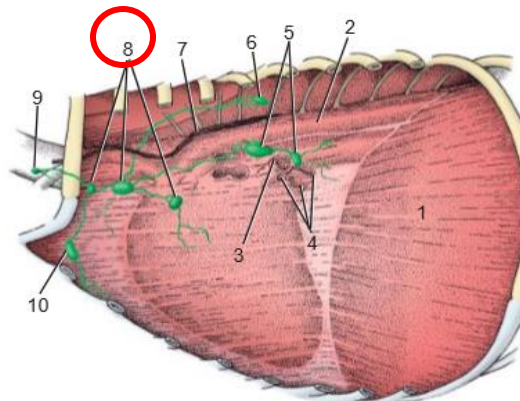
Bovine: Lymph Drainage, Thoracic Wall, and Mediastinum

1. Thoracic duct
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8. Tracheobronchial node



Canine: Thoracic Lymph Nodes

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9. Caudal deep cervical node
10. Sternal node



C Lymphocentrum thoracicum ventrale, dorsal aspect (bo)

Note: The left lung is removed. The outline of the heart is visible within the mediastinum.

LYMPHGEFÄßSYSTEM DER BRISTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) thoracicum ventrale:

- dem Brustbein aufliegenden Lymphknoten (ventrale Brustwandlymphknoten) lassen sich in:
 1. eine kompakte kraniale Gruppe – Nll. sternaes craniales (Brustbeinlymphknoten)
 2. eine verstreute kaudale Gruppe – Nll. sternaes caudales (Schaufelknorpellymphknoten)

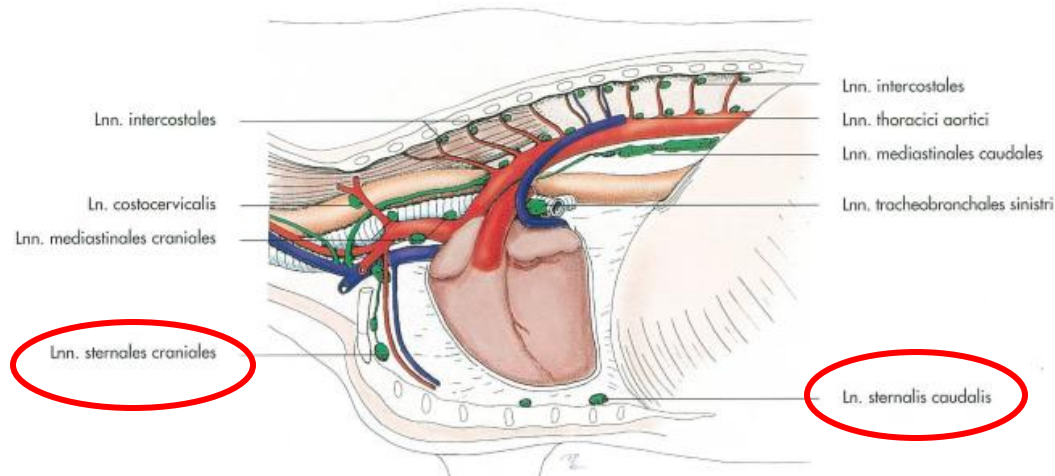


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LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) thoracicum ventrale:

1. NII. sternales craniales (Brustbeinlymphknoten):

- bei alle Hsgt. vorhanden

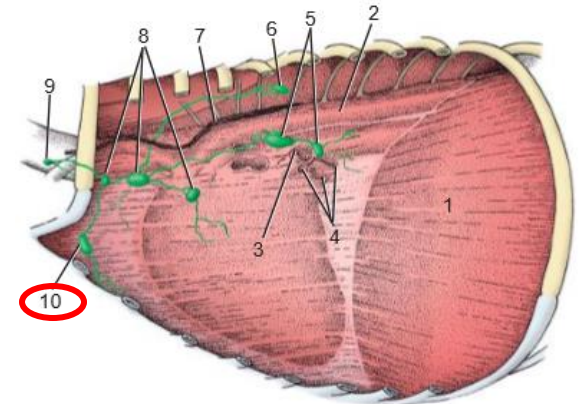
liegen:

a. über dem Prästernum im Fettgewebe des präkardialen Mittelfellsplattes,
neben der A. thoracica int.

oder

b. in den ersten beiden Zwischenrippenknorpelräumen

- bei der Fleischbeschau des Schw., Wdk., Pfd. entfernt, bei der Zuchtsau untersucht



Canine: Thoracic Lymph Nodes

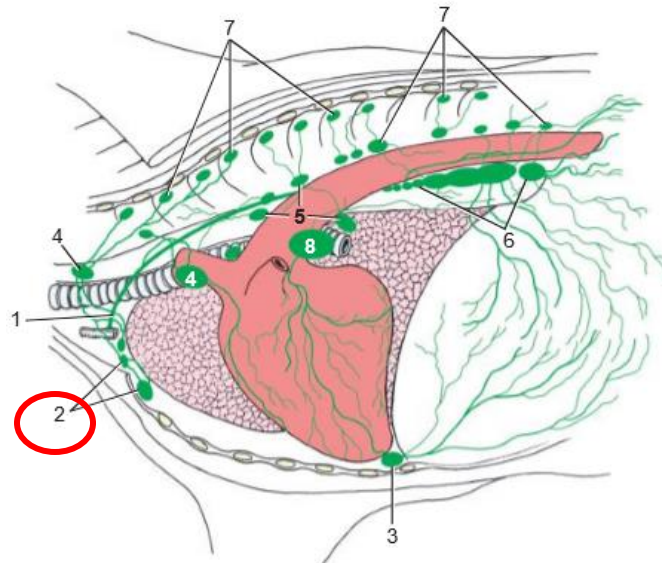
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Note: The left lung is removed. The outline of the heart is visible within the mediastinum.



Bovine: Lymph Drainage,
Thoracic Wall, and Mediastinum

1. Thoracic duct
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4. Cranial mediastinal lymph nodes
5. Middle mediastinal lymph nodes
6. Caudal mediastinal lymph nodes
7. Intercostal and thoracic aortic lymph nodes
8. Tracheobronchial node



LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

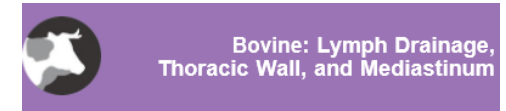
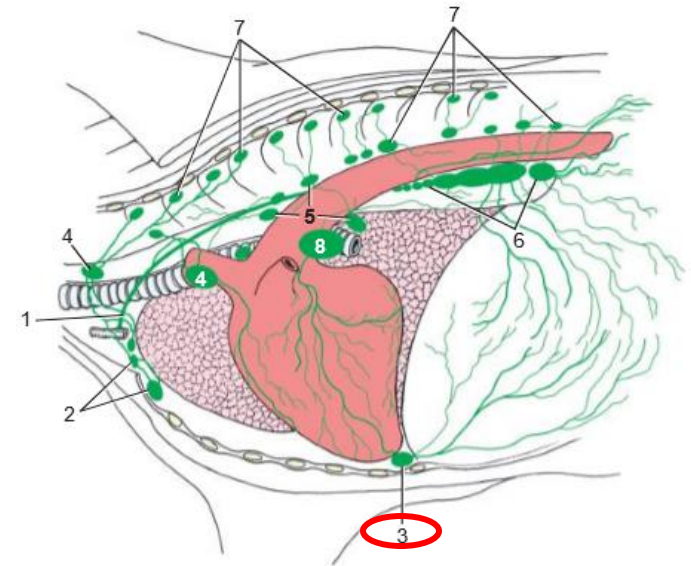
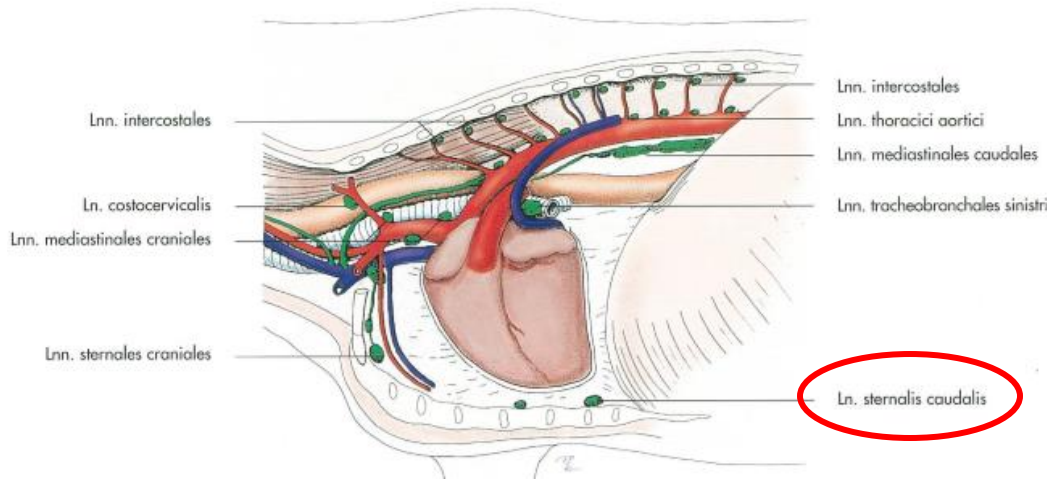
Lymphocentrum (Lc.) thoracicum ventrale:

2. NII. sternales caudales (Schaufelknorpellymphknoten):

- **kommen nur beim Wdk . vor**
- **inkonstant bei Pfd.**

liegen:

- a. entlang der A. und V. thoracica interna
- b. über oder unter dem M. transversus thoracis



**Bovine: Lymph Drainage,
Thoracic Wall, and Mediastinum**

1. Thoracic duct
2. Cranial sternal lymph nodes
3. Caudal sternal lymph node
4. Cranial mediastinal lymph nodes
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6. Caudal mediastinal lymph nodes
7. Intercostal and thoracic aortic lymph nodes
8. Tracheobronchial node

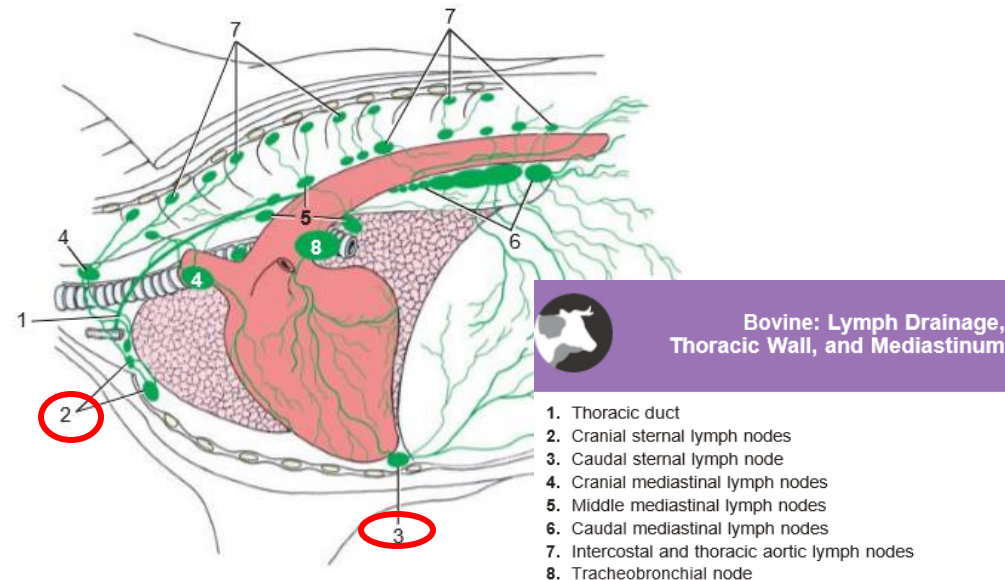
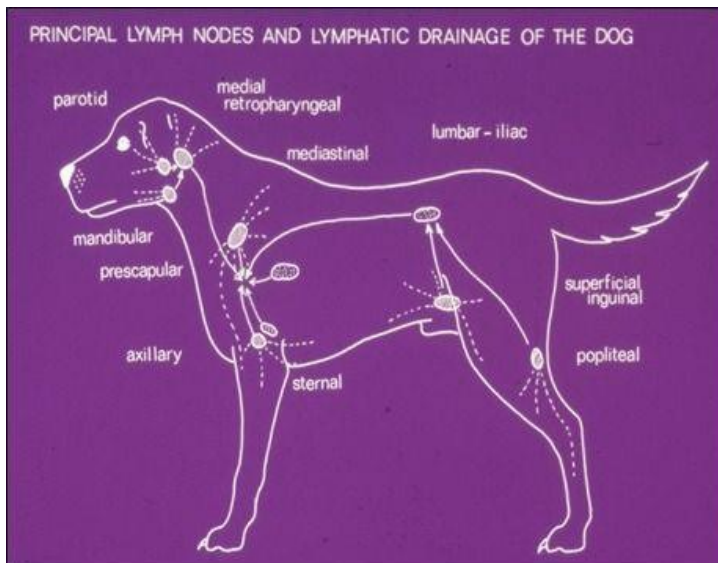
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LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) thoracicum ventrale:

die efferente Lymphgefäße ziehen:

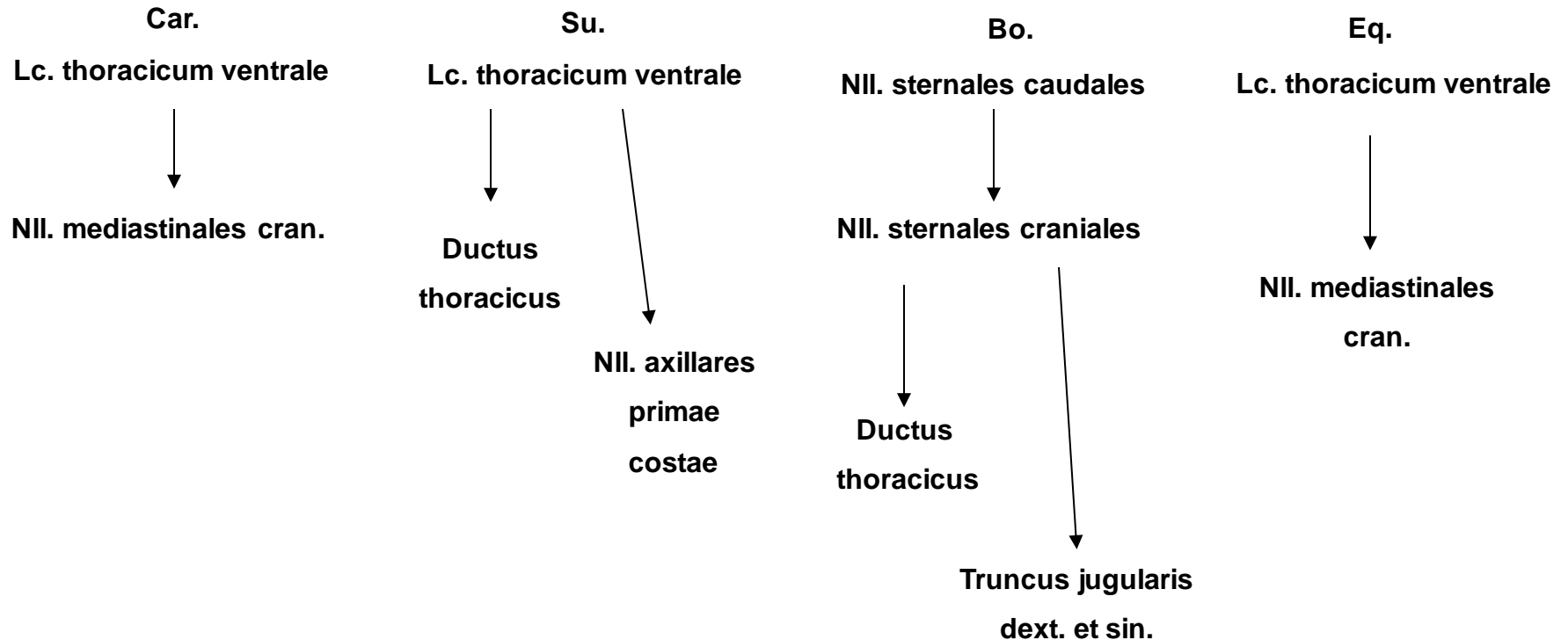
1. beim Flfr. – zu den Nll. mediastinales craniales
2. beim Schw. zum Mündungsteil des Ductus thoracicus oder den Nll. axillares primae costae
3. beim Rd. von den Nll. sternales caudales zu den Nll. sternales craniales- zu den Ductus thoracicus bzw. Truncus jugularis dexter et sinister
4. beim Pfd. zu den Nll. mediastinales craniales



LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) thoracicum ventrale:

die efferente LymphgefäÙe ziehen:



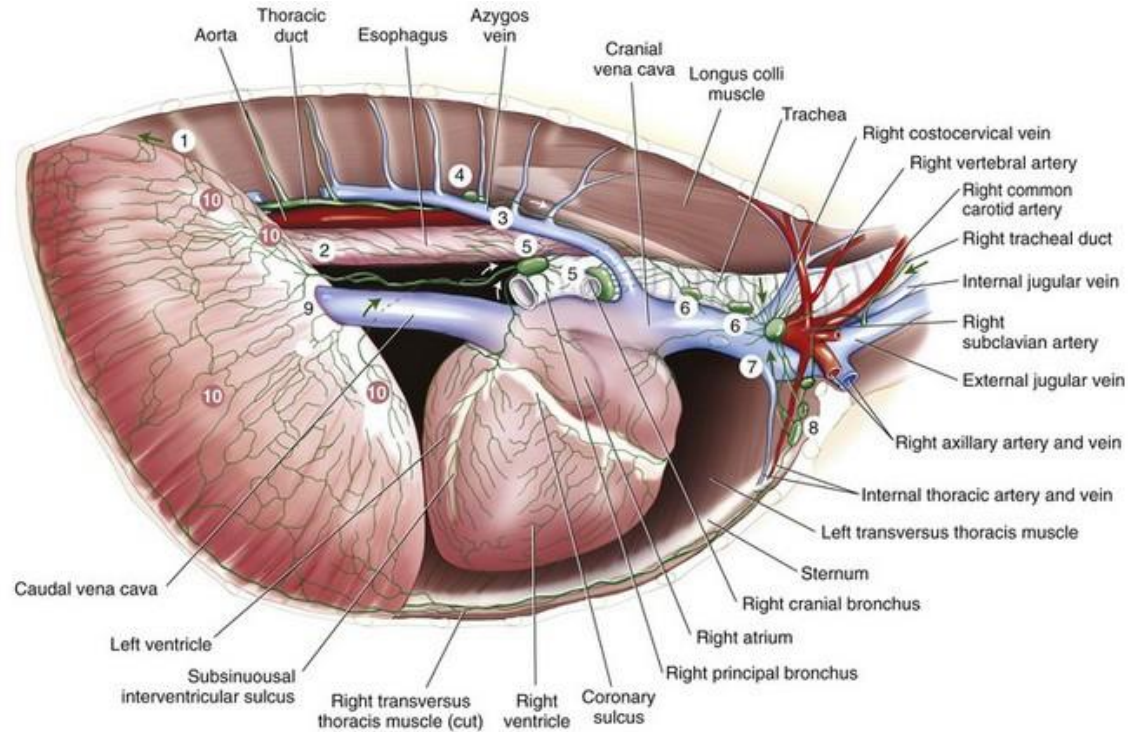
LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) mediastinale:

- im Mediastinalspalt

Das tributäre Gebiet aus:

- a. den Knochen des Brustkorbes
- b. den inneren Thoraxmuskeln
- c. dem Zwerchfell
- d. tiefen Halsmuskeln
- e. dem Brustfell
- f. dem Herzbeutel, Herz
- g. dem Brustteil des Thymus
- h. dem Oesophagus, Trachea



1. To cranial lumbar lymph node
2. Lymph vessels of the esophagus that enter the abdominal cavity
3. Lymph vessels of the esophagus that turn to the left and empty into the left tracheobronchial lymph node
4. Intercostal lymph node
5. Middle and right tracheobronchial lymph nodes
6. Cranial mediastinal lymph nodes
7. Efferent vessel of a left cranial mediastinal lymph node
8. Cranial sternal lymph node
9. To gastric, splenic, hepatic or cranial lumbar lymph nodes
10. Pars costalis, pars lumbalis and tendinous parts of the diaphragm

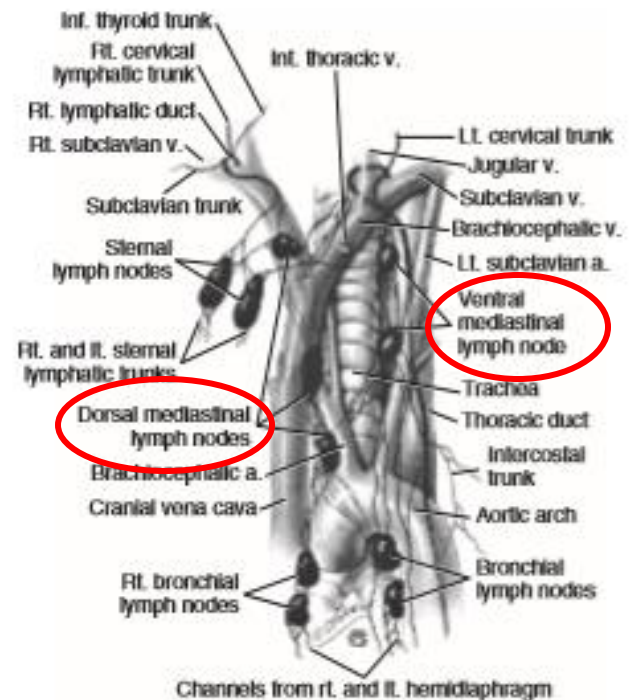
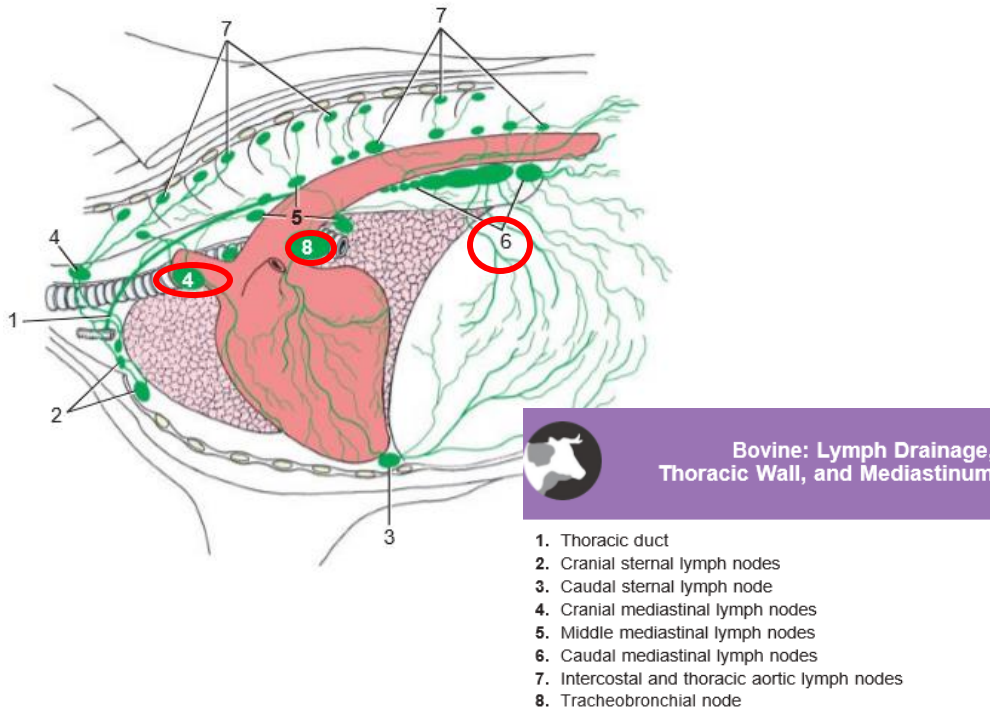
LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) mediastinale:

- drei Lymphknotengruppen (Mittelfellymphknoten):

1. NII. mediastinales craniales
2. NII. mediastinales medii
3. NII. mediastinales caudales

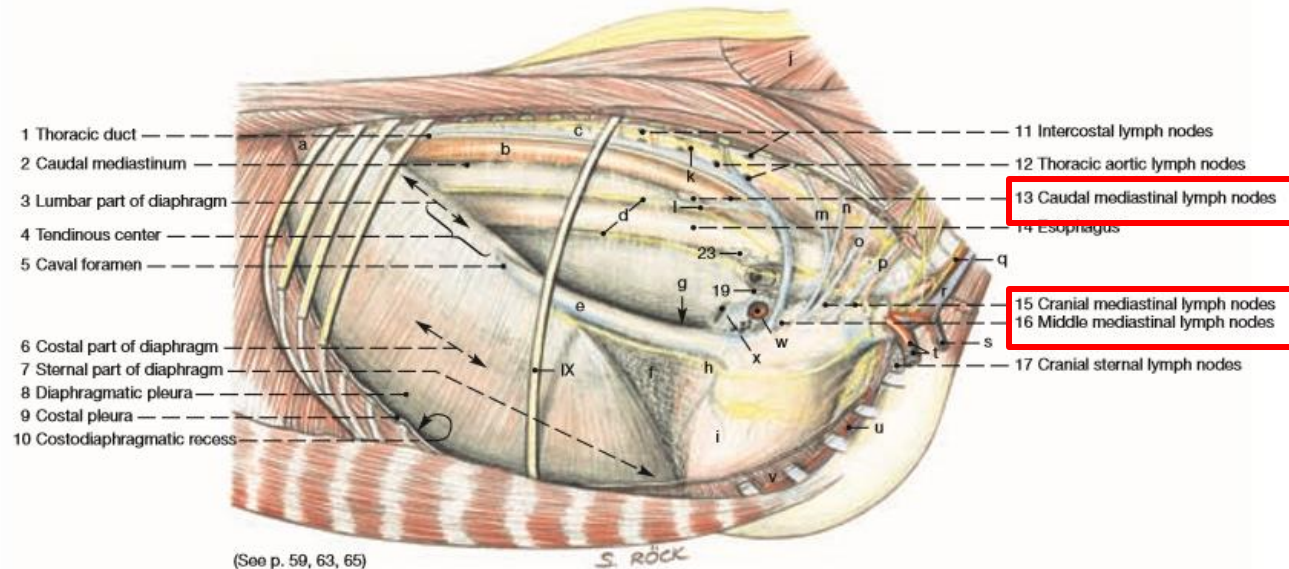
- alle Mediastinallymphknoten werden bei der Fleischbeschau untersucht



LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) mediastinale:

The Thoracic Cavity (right side) and the Lungs



- A Principal bronchus
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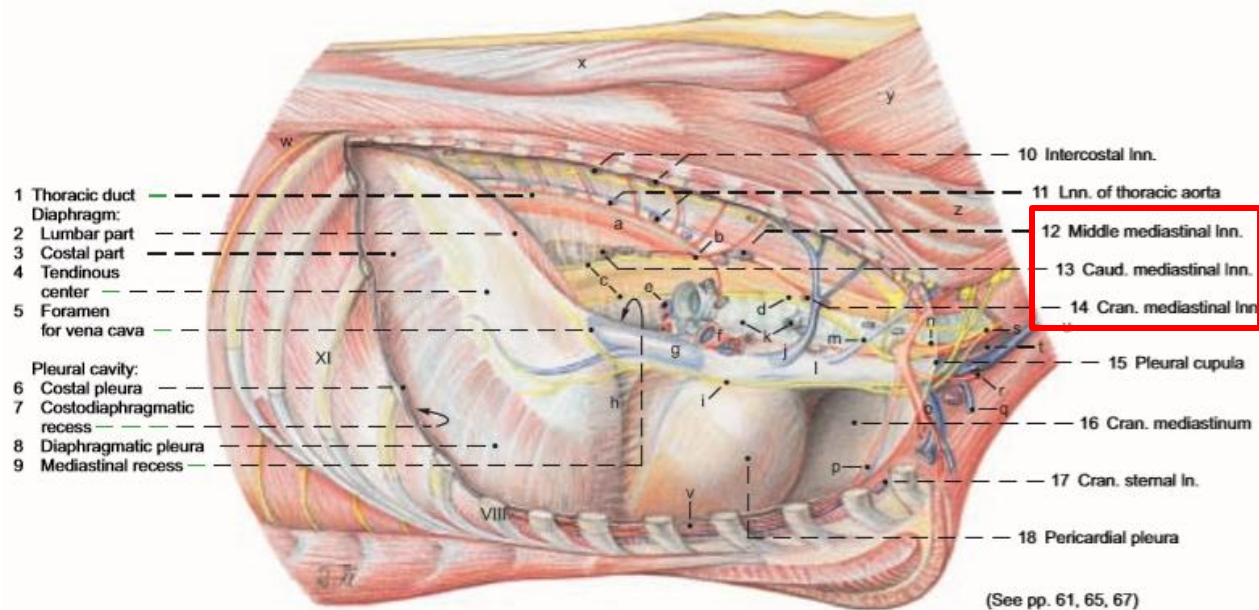
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LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) mediastinale:

Right thoracic cavity and Lungs



Legend:

A Main bronchus
B Lobar bronchus
C Segmental bronchus
a Thoracic aorta
b Bronchoesophageal a.
c Dors. and vent. vagal trunks

d Right vagus n.
e Pulmonary vv.
f Pulmonary a.
g Caud. vena cava
h Plica venae cavae
i Phrenic n.

j Right azygos v.
k Trachea and tracheal bronchus
l Cran. vena cava
m Costocervical v.
n Right recurrent laryngeal n.
o Right subclavian a. and v.

p Internal thoracic a. and v.
q Cephalic v.
r Supf. cervical a. and v.
s Vagosympathetic trunk
t Common carotid a. and internal jugular v.
u External jugular v.

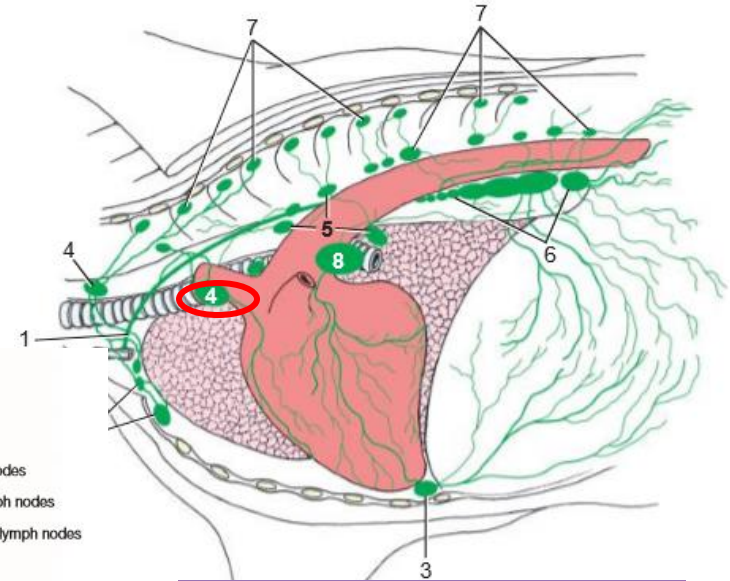
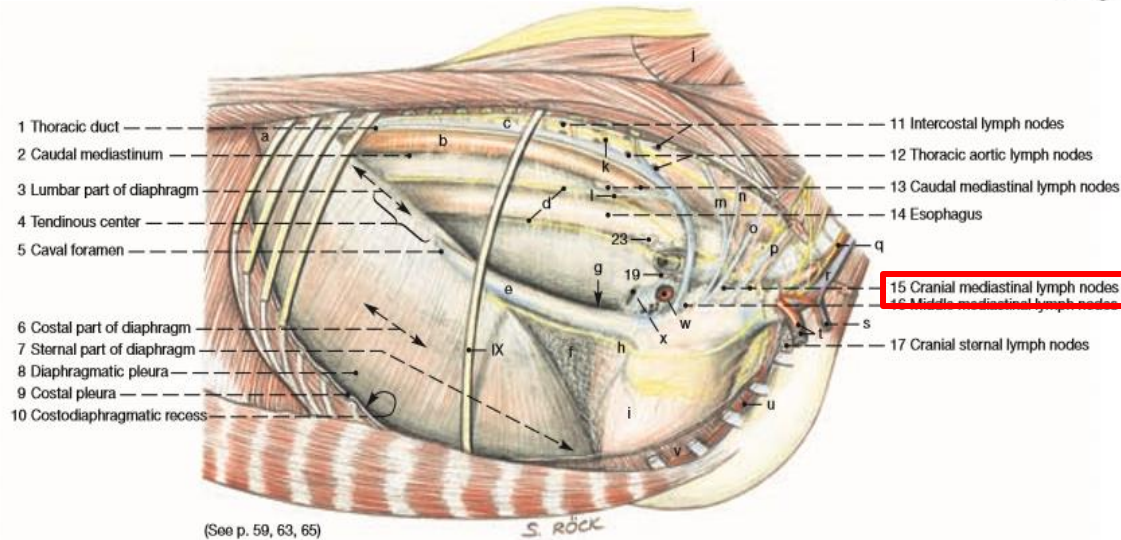
v Transverse thoracic m.
w Retractor costae
x Spinalis et semispinalis cervicis et capitis
y Semispinalis capitis
z Longissimus cervicis

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) mediastinale:

1. Nll. mediastinales cranialia:

- in kranialem Mediastinum nahe dem Brusteingang
- bei allen Hsgt. vorhanden



1. Thoracic duct
2. Cranial sternal lymph nodes
3. Caudal sternal lymph node
4. Cranial mediastinal lymph nodes
5. Middle mediastinal lymph nodes
6. Caudal mediastinal lymph nodes
7. Intercostal and thoracic aortic lymph nodes
8. Tracheobronchial node

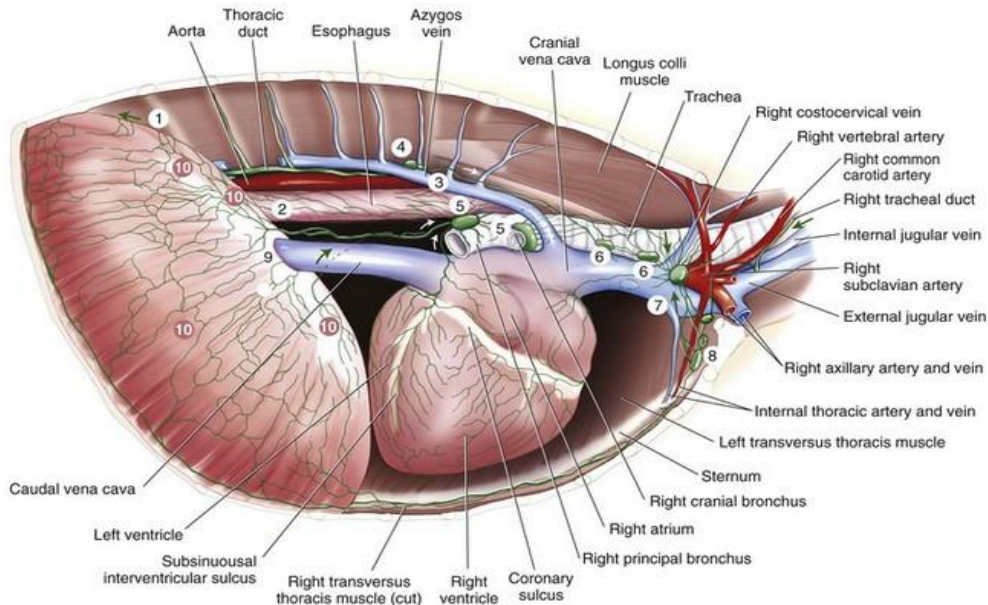
Eq.

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) mediastinale:

1. Nll. mediastinales craniales:

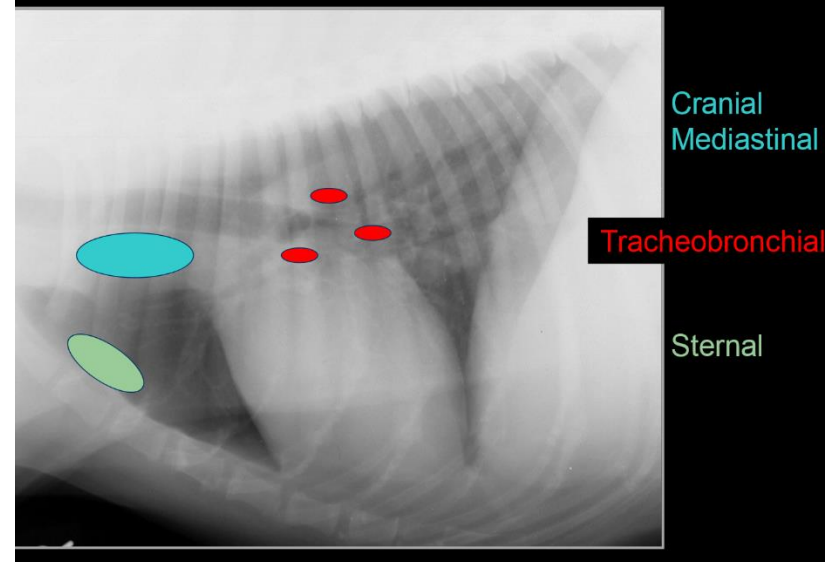
- beim Flfr. im RTG-Bild, wenn sie vergrößert sind, sichtbar gemacht werden



1. To cranial lumbar lymph node
2. Lymph vessels of the esophagus that enter the abdominal cavity
3. Lymph vessels of the esophagus that turn to the left and empty into the left tracheobronchial lymph node
4. Intercostal lymph node
5. Middle and right tracheobronchial lymph nodes
6. Cranial mediastinal lymph nodes
7. Efferent vessel of a left cranial mediastinal lymph node
8. Cranial sternal lymph node
9. To gastric, splenic, hepatic or cranial lumbar lymph nodes
10. Pars costalis, pars lumbalis and tendinous parts of the diaphragm

<https://veteriankey.com/thoracic-cavity/>

Mediastinal Lymph Nodes



<https://www.memorangapp.com/flashcards/96347/SP16+Diagnostic+Imaging+E3-Thrall/>

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) mediastinale:

1. Nll. mediastinales craniales:

mit ihnen in Verbindung stehen die:

- a. Nll. cervicale profundi caudales
- b. Nll. thoracici aortici
- c. Nll. sternales craniales et caudales
- d. Nll. des Lc. bronchale

nehmen sie:

1. Vasa afferentia vom Herz auf

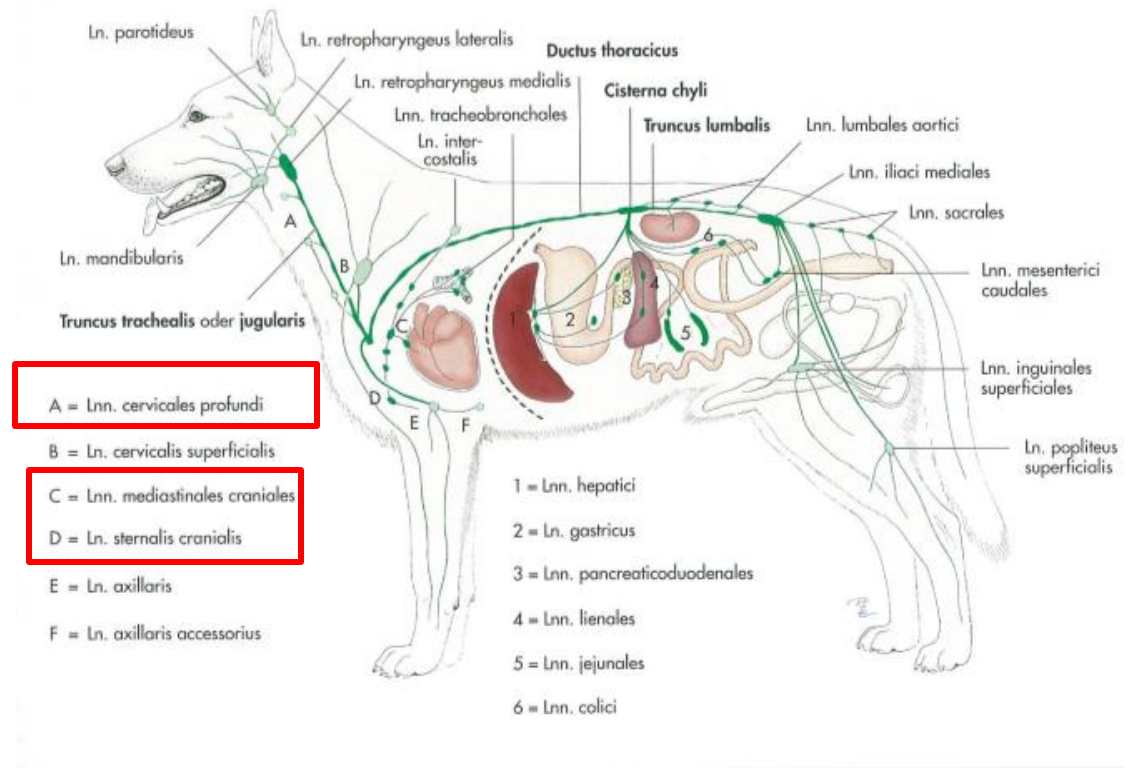


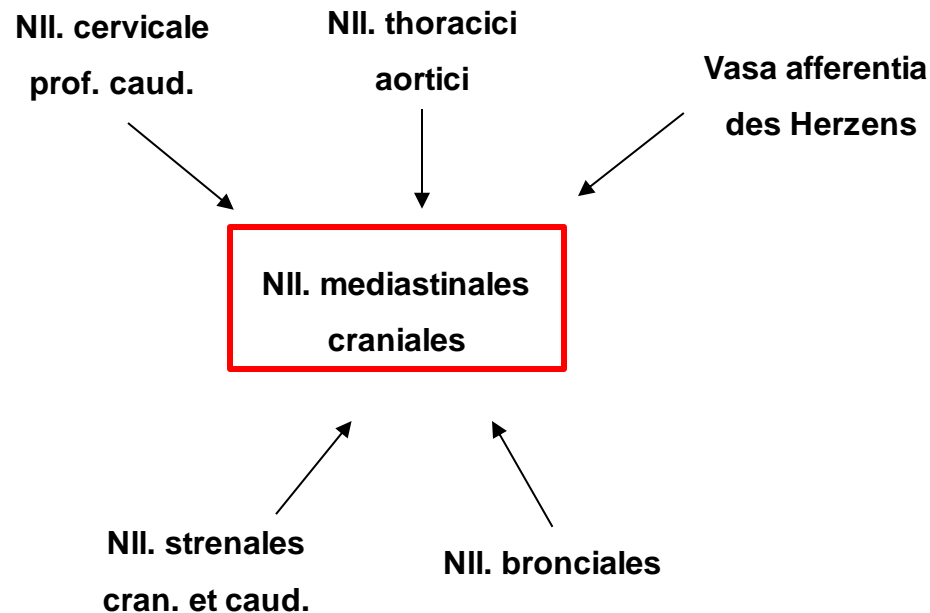
Abb. 13-12. Schematische Darstellung des lymphatischen Systems des Hundes (Übersicht), nach Budras, Fricke und Richter, 1996.

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) mediastinale:

1. NII. mediastinales craniales:

mit ihnen in Verbindung stehen die:

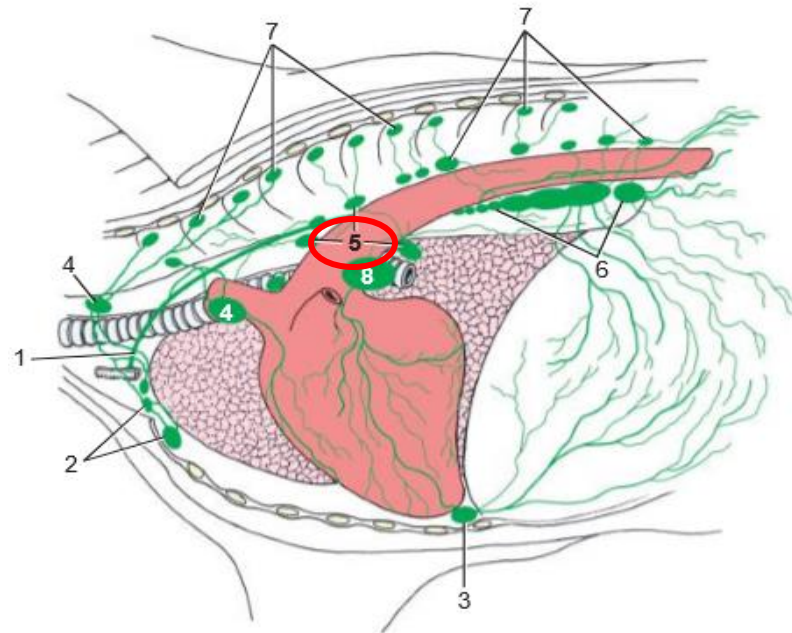


LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) mediastinale:

2. Nll. mediastinales medii:

- **fehlen den Flfr., Schw.**
- beim Wdk., Pfd. liegen:
 - a. über der Herzbasis
 - b. rechts vom Aortabogen
 - c. rechts von Trachea, Oesophagus



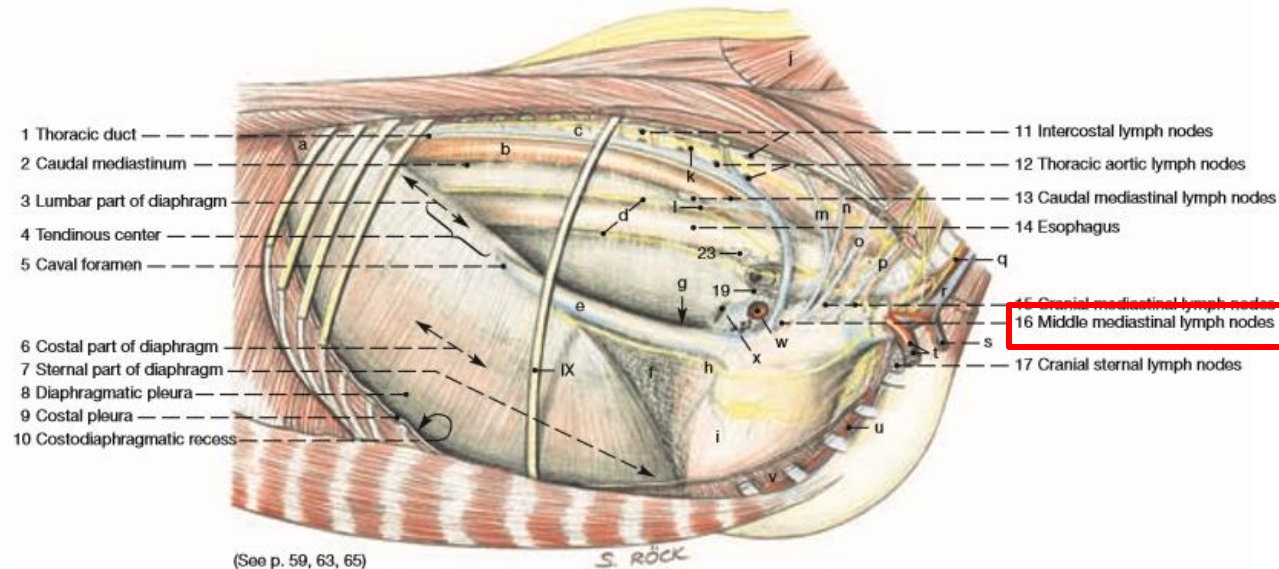
Bovine: Lymph Drainage,
Thoracic Wall, and Mediastinum

1. Thoracic duct
2. Cranial sternal lymph nodes
3. Caudal sternal lymph node
4. Cranial mediastinal lymph nodes
5. Middle mediastinal lymph nodes
6. Caudal mediastinal lymph nodes
7. Intercostal and thoracic aortic lymph nodes
8. Tracheobronchial node

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) mediastinale:

The Thoracic Cavity (right side) and the Lungs



- A Principal bronchus
- B Lobar bronchus
- C Segmental bronchus
- a Retractor costae
- b Aorta
- c Right azygous vein
- d Dorsal and ventral vagal trunks

- e Caudal vena cava
- f Caval fold
- g Mediastinal recess
- h Phrenic nerve
- i Pericardiac pleura
- j Semispinalis capitis
- k Intercostal vessels

- l Bronchoesophageal vessels
- m Supreme intercostal vessels
- n Dorsal scapular vessels
- o Deep cervical vessels
- p Vertebral vessels and nerve
- q Common carotid a. and vagosympathetic trunk

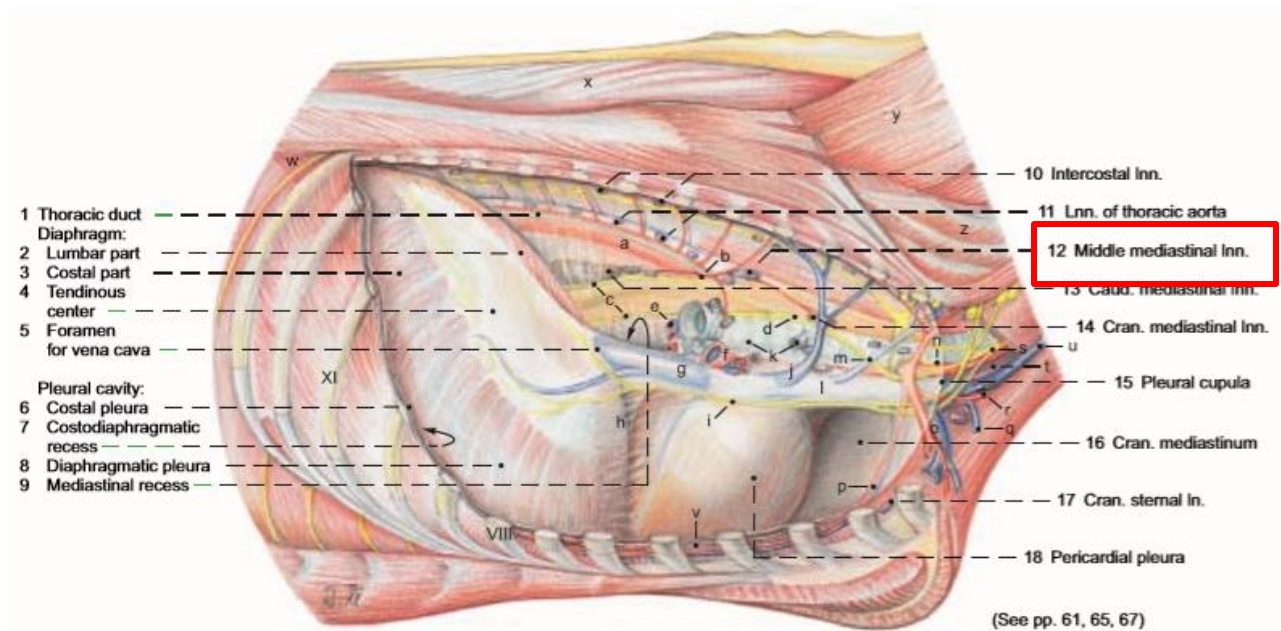
- r Ext. jugular vein
- s Cephalic vein
- t Axillary vessels
- u Int. thoracic vessels
- v Transversus thoracis
- w Pulmonary artery
- x Pulmonary veins

Eq.

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) mediastinale:

Right thoracic cavity and Lungs



Legend:

- | | | | | |
|--------------------------------|---------------------|---------------------------------|---|--|
| A Main bronchus | d Right vagus n. | j Right azygos v. | p Internal thoracic a. and v. | v Transverse thoracic m. |
| B Lobar bronchus | e Pulmonary vv. | k Trachea and tracheal bronchus | q Cephalic v. | w Retractor costae |
| C Segmental bronchus | f Pulmonary a. | l Cran. vena cava | r Supf. cervical a. and v. | x Spinalis et semispinalis cervicis et capitis |
| a Thoracic aorta | g Caud. vena cava | m Costocervical v. | s Vagosympathetic trunk | y Semispinalis capitis |
| b Bronchoesophagial a. | h Plica venae cavae | n Right recurrent laryngeal n. | t Common carotid a. and internal jugular v. | z Longissimus cervicis |
| c Dors. and vent. vagal trunks | i Phrenic n. | o Right subclavian a. and v. | u External jugular v. | |

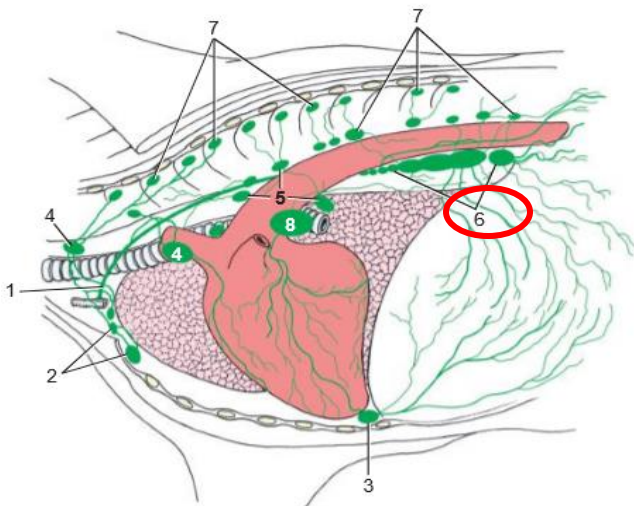
Bo.

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) mediastinale:

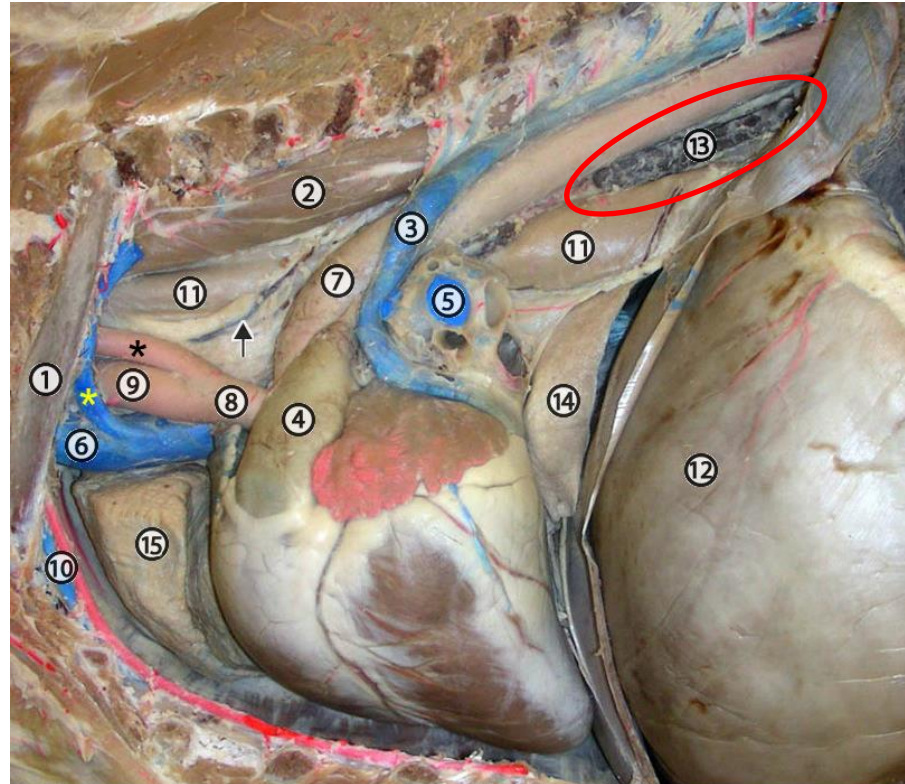
3. Nll. mediastinales caudales:

- fehlen den Fflr.
- beim Pfd. inkonstant



Bovine: Lymph Drainage,
Thoracic Wall, and Mediastinum

1. Thoracic duct
2. Cranial sternal lymph nodes
3. Caudal sternal lymph node
4. Cranial mediastinal lymph nodes
5. Middle mediastinal lymph nodes
6. Caudal mediastinal lymph nodes
7. Intercostal and thoracic aortic lymph nodes
8. Tracheobronchial node



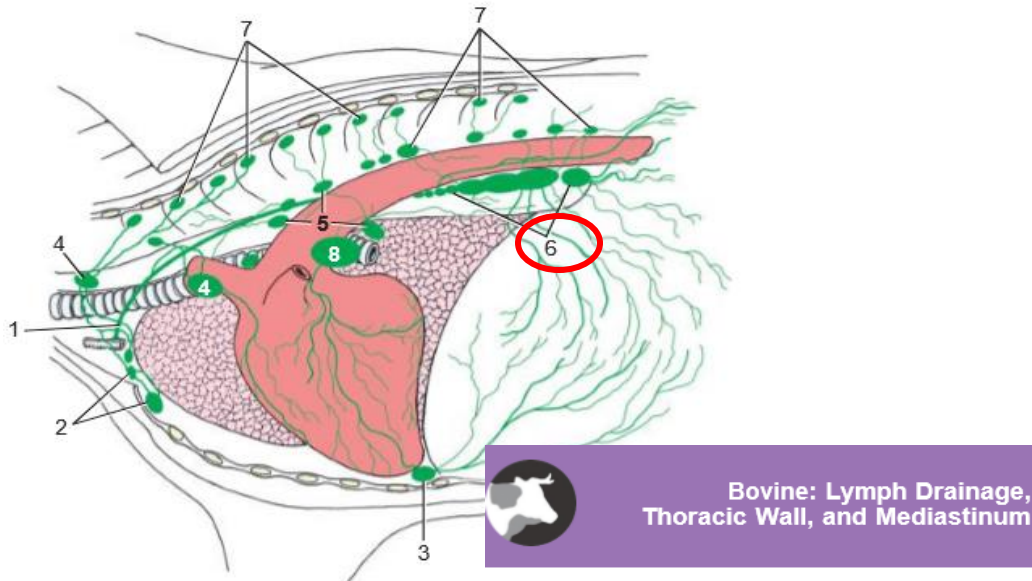
Ovine mediastinal dissection. 1, first rib; 2, longus colli m.; 3, left azygous v.; 4, pulmonary trunk; 5, left pulmonary artery; 6, cranial vena cava; yellow asterisk, costocervical v.; 7, aorta; 8, brachiocephalic trunk; 9, brachiocephalic artery; black asterisk, left subclavian a. ; 10, internal thoracic a. and v.; 11, esophagus; 12, stomach; 13, caudal mediastinal lymph node; 14, accessory lobe of right lung; 15, cranial lobe of right lung; arrow without number, thoracic duct.

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

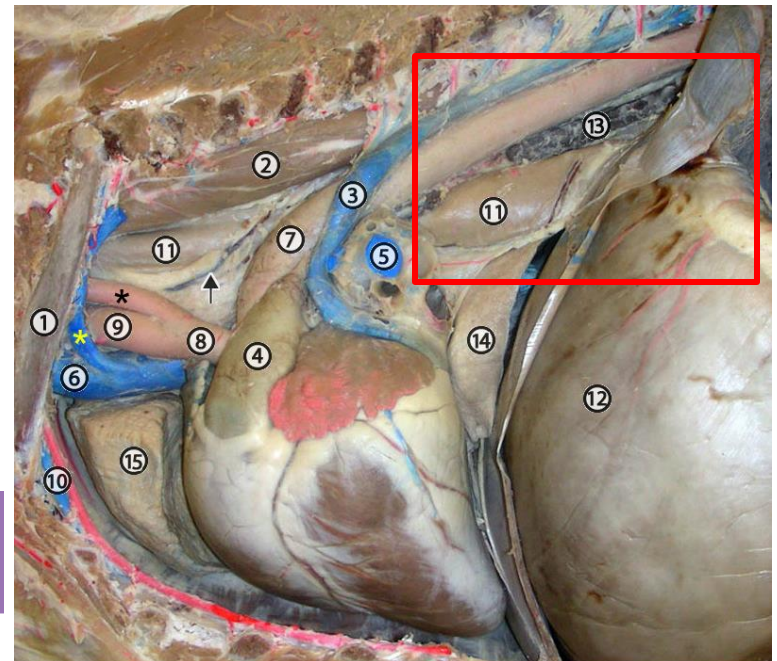
Lymphocentrum (Lc.) mediastinale:

3. NII. mediastinales caudales:

- beim Wdk. hat eine auffallende Größe – bei krankhafter Umfangsvermehrung kann er zur Einengung des Oesophagus führen



1. Thoracic duct
2. Cranial sternal lymph nodes
3. Caudal sternal lymph node
4. Cranial mediastinal lymph nodes
5. Middle mediastinal lymph nodes
6. Caudal mediastinal lymph nodes
7. Intercostal and thoracic aortic lymph nodes
8. Tracheobronchial node



Ovine mediastinal dissection. 1, first rib; 2, longus colli m.; 3, left azygous v.; 4, pulmonary trunk; 5, left pulmonary artery; 6, cranial vena cava; yellow asterisk, costocervical v.; 7, aorta; 8, brachiocephalic trunk; 9, brachiocephalic artery; black asterisk, left subclavian a.; 10, internal thoracic a. and v.; 11, esophagus; 12, stomach; 13, caudal mediastinal lymph node; 14, accessory lobe of right lung; 15, cranial lobe of right lung; arrow without number, thoracic duct.

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) mediastinale:

- Vasa efferentia münden zum Ductus thoracicus

Lc. mediastinales



Ductus
thoracicus

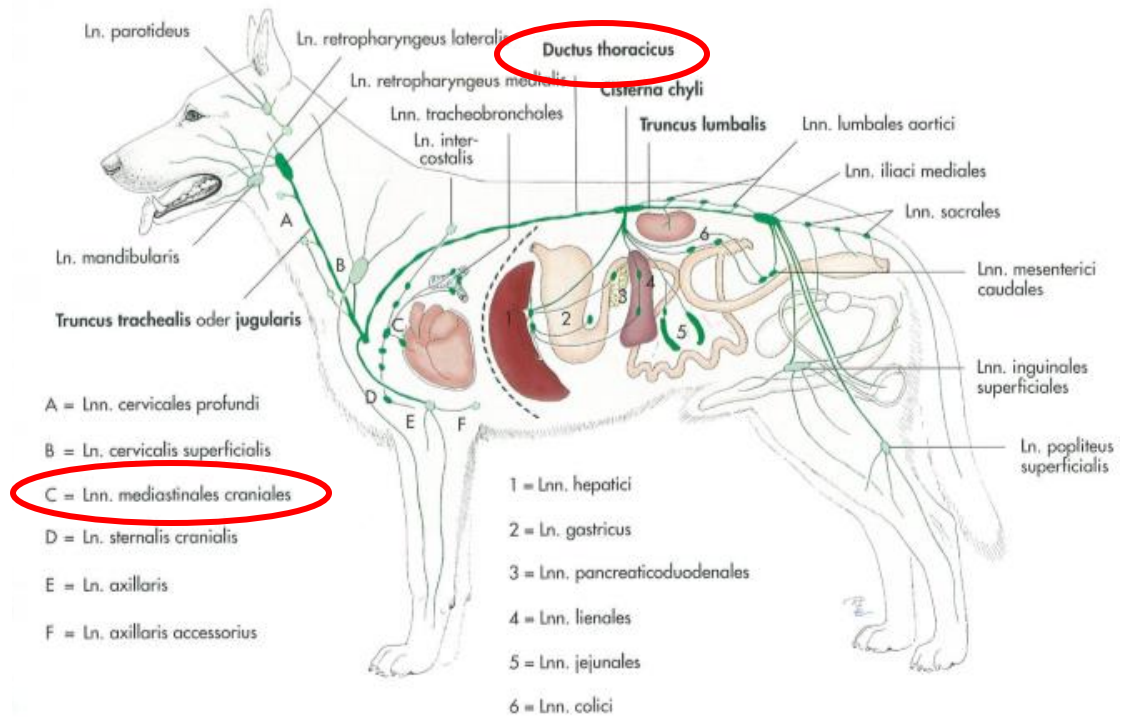


Abb. 13-12. Schematische Darstellung des lymphatischen Systems des Hundes (Übersicht), nach Budras, Fricke und Richter, 1996.

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

Lymphocentrum (Lc.) bronchale:

- an der Lungenwurzel

drei Lymphknotengruppen (Lungenwurzellymphknoten):

1. NII. bifurcationis seu tracheobronchiales dextri
2. NII. bifurcationis seu tracheobronchiales sinistri
3. NII. bifurcationis seu tracheobronchiales medii

- bei allen Schlachttieren werden die Lungenwurzellymphknoten der Fleischschau untersucht

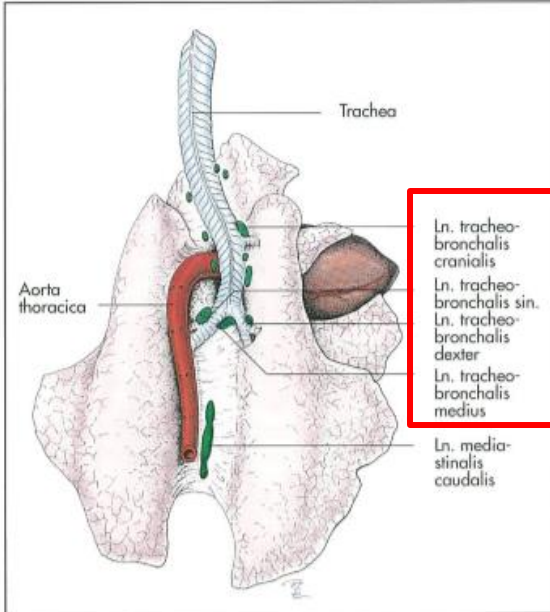
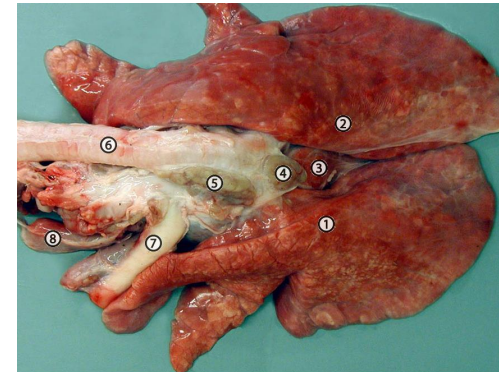
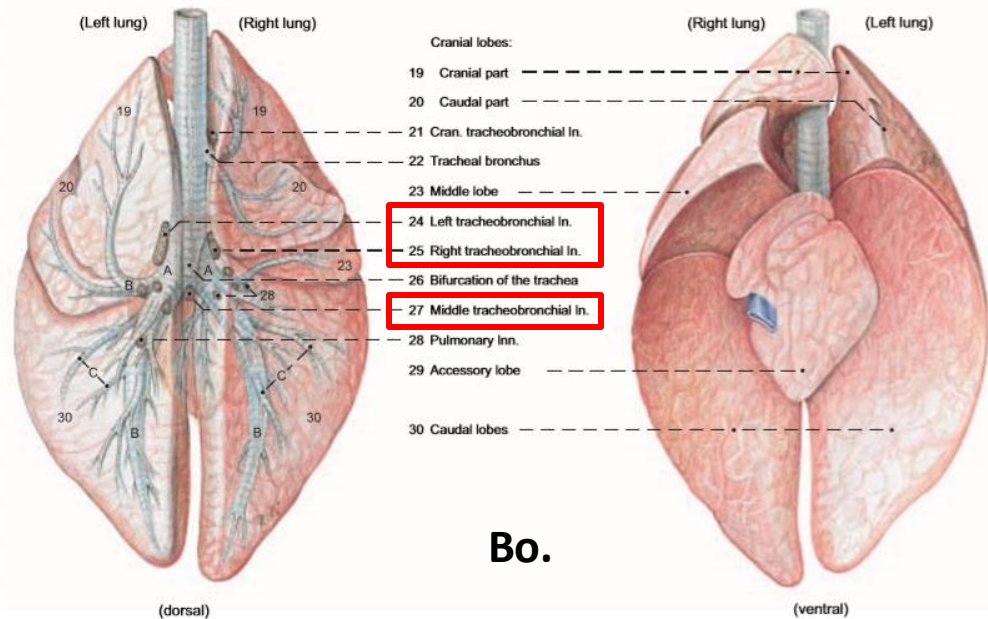


Abb. 13-11. Schematische Darstellung der Lymphknoten an der Lunge des Rindes (Dorsalansicht), nach Najbrt, 1982.

Lungs and Bronchial Inn.



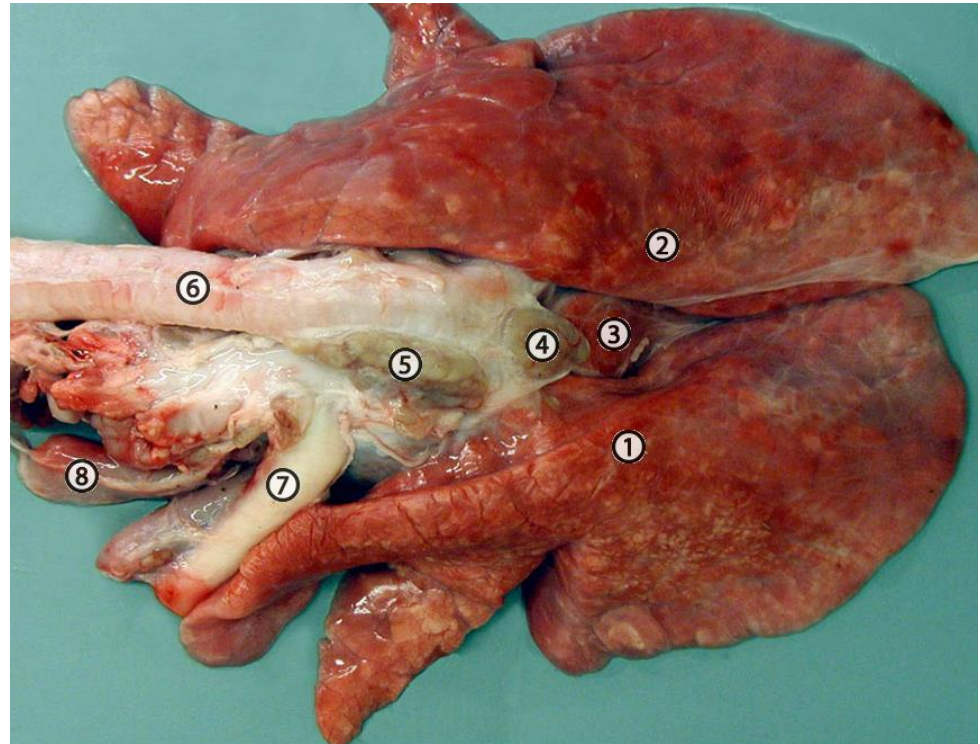
Bo.

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) bronchiale:

drei Lymphknotengruppen (Lungenwurzellymphknoten):

1. NII. bifurcationis seu tracheobronchiales sinistri
2. NII. bifurcationis seu tracheobronchiales medii

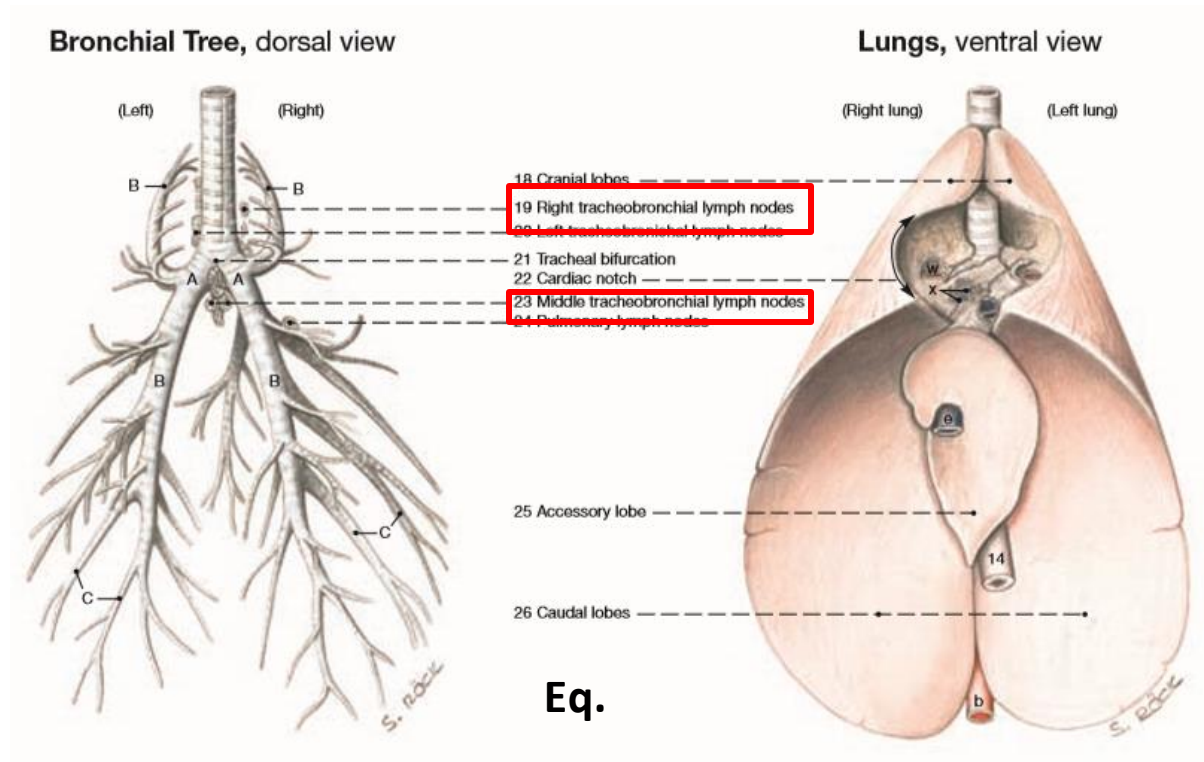


Dorsal view of lamb lungs. 1, left lung reflected; 2, right lung; 3, accessory lobe of right lung; 4, middle tracheobronchial lymph nodes; 5, left tracheobronchial lymph nodes; 6, trachea; 7, aorta reflected; 8, thymus.

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) bronchiale:

1. Nll. bifurcationis seu tracheobronchiales dextri
 2. Nll. bifurcationis seu tracheobronchiales medii
- bei Rd., Zg. inkonstant
 - fehlen beim Schf.

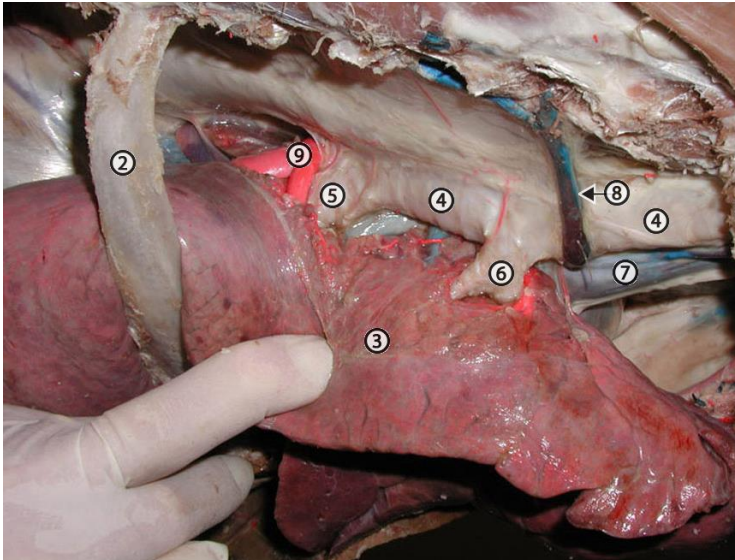


LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) bronchale:

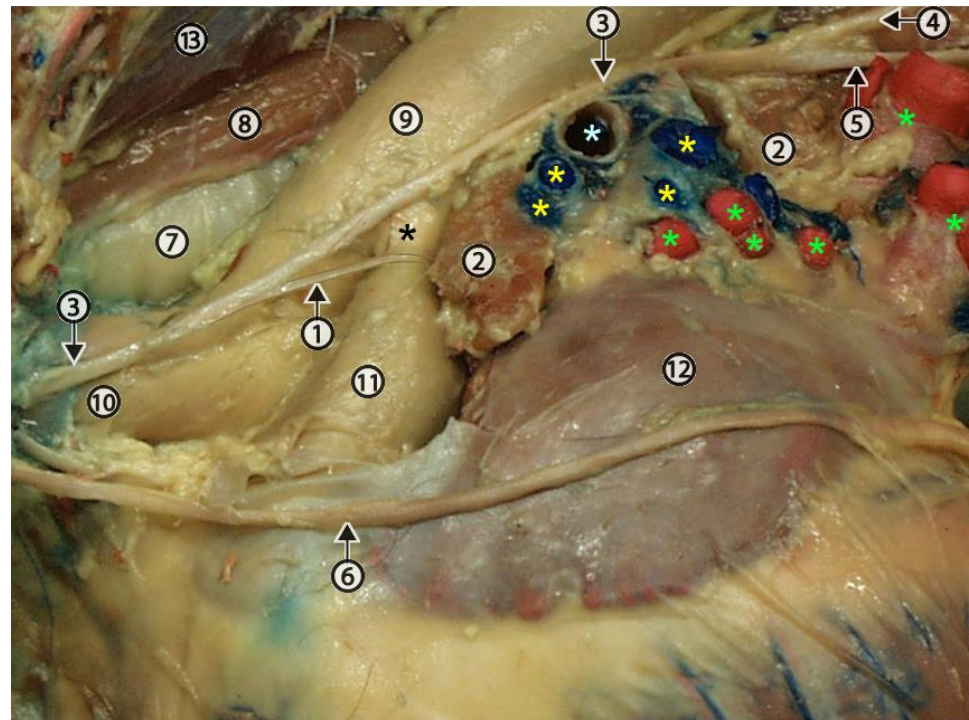
NII. bifurcationis seu tracheobronchiales craniales:

- **vorhanden bei Schw., Wdk., am Bronchus trachealis**



Reflection of a bovine lung (3) to expose the bronchi on the right side. 1, first rib; 2, rib six; 4, trachea; 5, right primary bronchus; 6, tracheal bronchus; 7, cranial vena cava; 8, right azygous vein; 9, a pulmonary vein.

<http://vanat.cvm.umn.edu/ungDissect/Lab10/img10-14.html>



Dissection of the left recurrent laryngeal n. (1) to show close proximity to the tracheobronchial lymph nodes (2). 2, cranial and caudal clumps of tracheobronchial lymph nodes; 3, vagus n.; 4, dorsal branch of vagus n.; 5, ventral branch of vagus n.; 6, phrenic nerve; 7, trachea; 8, esophagus; 9, aorta; 10, brachiocephalic trunk; 11, pulmonary a.; 12, left atrium; 13, longus colli muscle; black

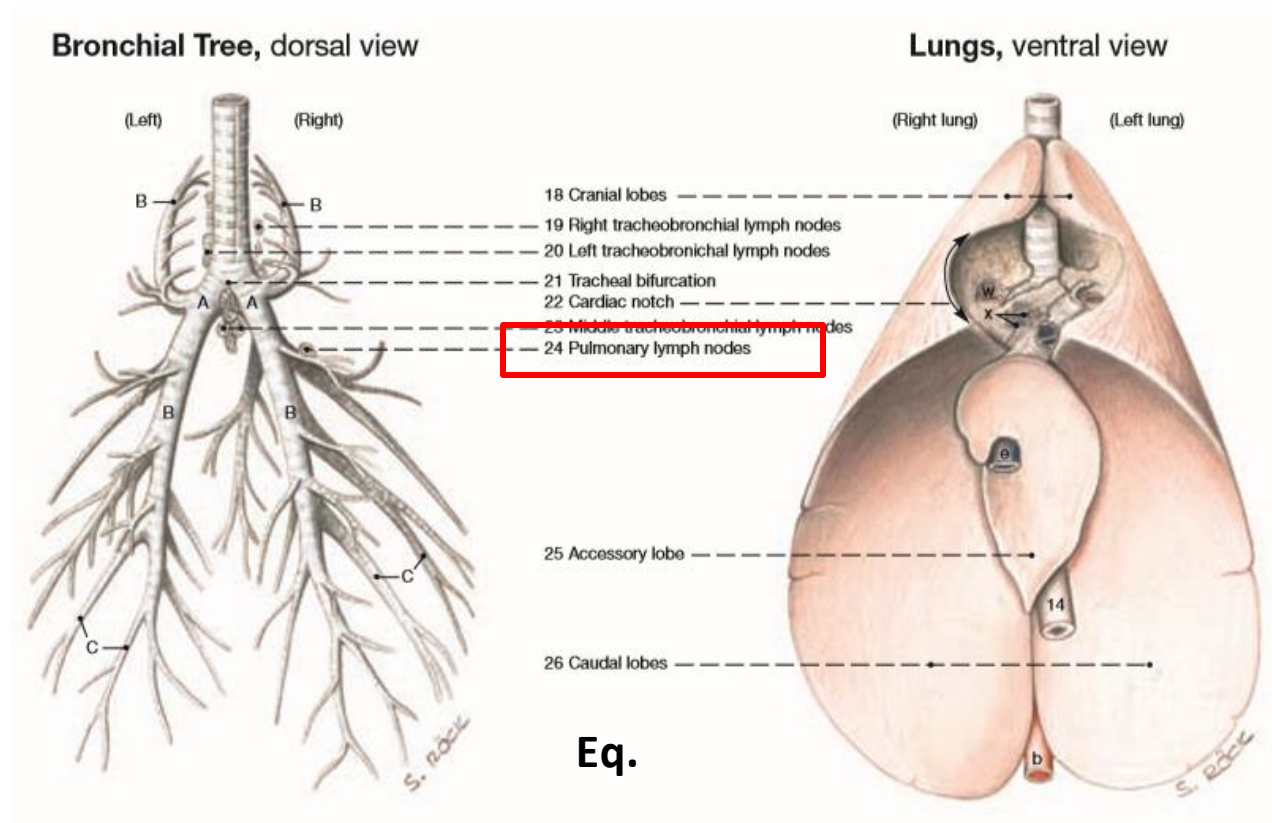
<http://vanat.cvm.umn.edu/ungDissect/Lab10/img10-4.html>

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

Lymphocentrum (Lc.) bronchiale:

NII. pulmonales:

- finden sich bei den Flfr., beim Rd., beim Pfd., beim Zg.
- im Lungengewebe



LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

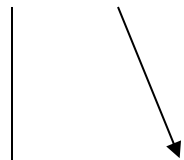
Lymphocentrum (Lc.) bronchiale:

Vasa efferentia münden:

a. in den Nll. mediastinales craniales. et medii

b. an den Ductus thoracicus

Lc. bronchiale



Nll. mediastinales
cran. et med.

Ductus
thoracicus

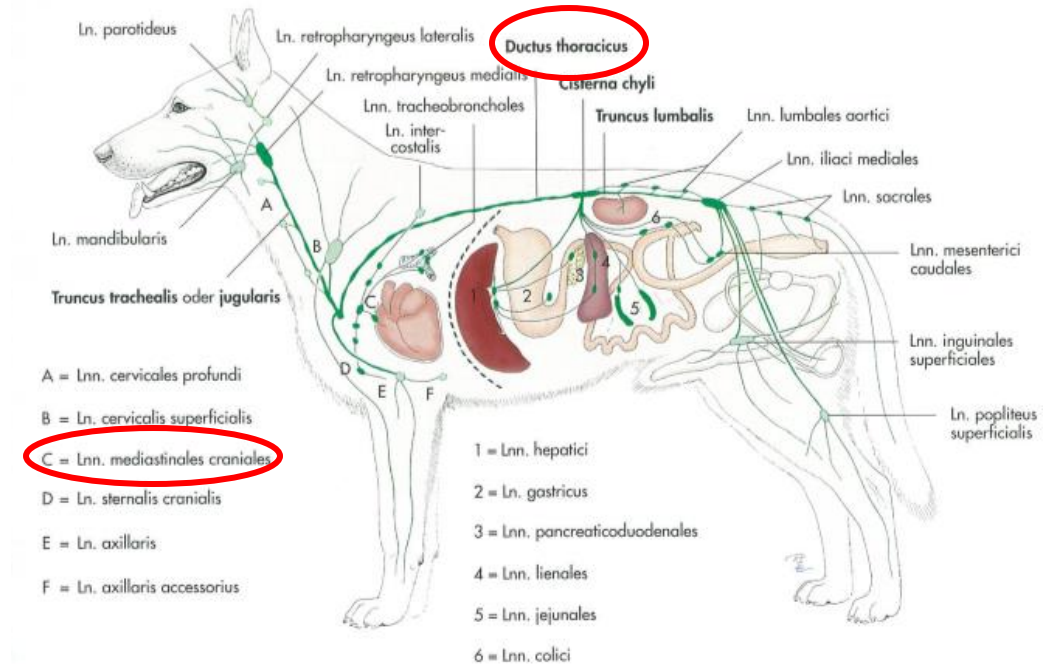


Abb. 13-12. Schematische Darstellung des lymphatischen Systems des Hundes (Übersicht), nach Budras, Fricke und Richter, 1996.

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

CISTERNA CHYLI (LENDENCISTERNE):

- intestinaler Sammelraum der Lymphe
- bei allen Haussäugetieren
- liegt rechts und dorsal der Aorta abdominalis zwischen dem Ursprung beider Zwerchfellpeiler
- reicht von L2 bis zum letzten Brustwirbel
- nimmt an ihren kaudalen Ende die Trunci lumbales auf
- an ihrem kranialen Ende entläßt de Ductus thoracicus

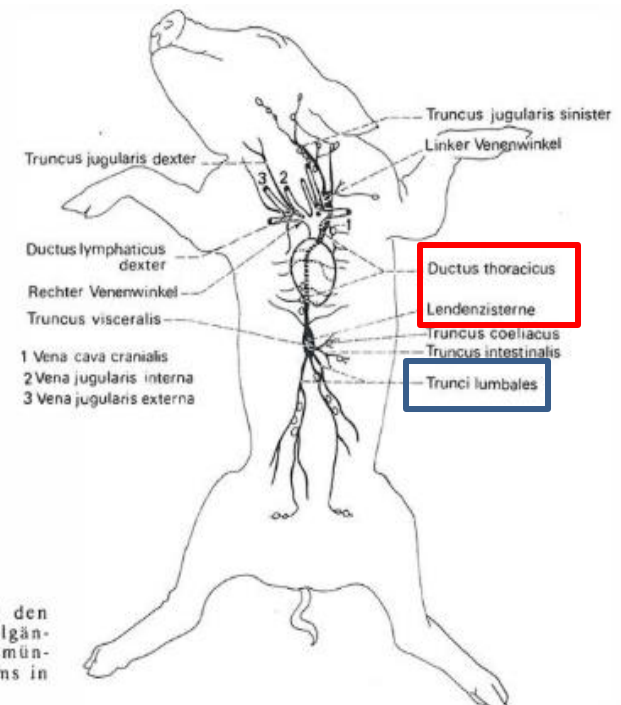


Abb. 233. Schema von den großen Lymphsammelgängen und von der Einmündung des Lymphsystems in das Venensystem

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

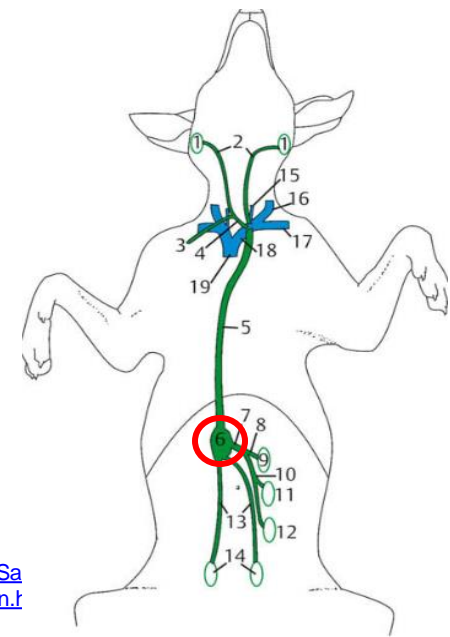
CISTERNA CHYLI (LENDENCISTERNE):

die Gestalt sehr variabel:

- beim Pfd. und Schw. - längsoval bis spindelartig geformt
- beim Hd. - am stärksten ausgebildet und sackförmig
- beim Wdk.:

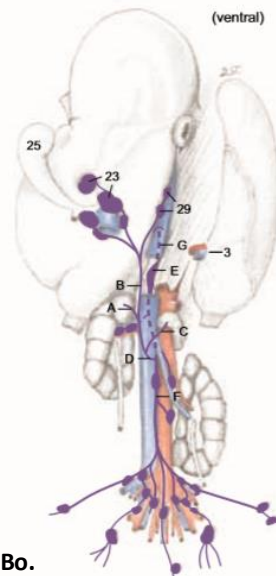
a. eine Längsmaschenbildung oder

b. ein oder zwei unmerklich verdickte, langgestreckte Lymphstämme, die der Lendenzisterne der anderen Haussäugetieren entsprechen



<https://docplayer.org/91328709-Sa-gille-anatomie-fuer-die-tiermedizin.f>

Lymph nodes and Lymphatic vessels*



The lymph drainage is through the **intestinal trunk (A)** which joins the **hepatic trunk (B)**, and after receiving the **gastric trunk (C)** with lymph from the stomach and spleen, becomes the **visceral trunk (D)** and enters the **cisterna chyli (E)**. The valveless **cisterna chyli** receives the **lumbar trunk (F)**, which drains the lymph from the pelvic limbs, genital organs, and the pelvis.

The **thoracic duct (G)**, emerging cranially from the **cisterna chyli**, passes in the ox through a slit in the muscle of the right crus of the diaphragm into the thorax. It does not pass through the aortic hiatus as in the horse and dog. For lymph nodes of the pelvic cavity, see also pp. 82–83.

Bo.

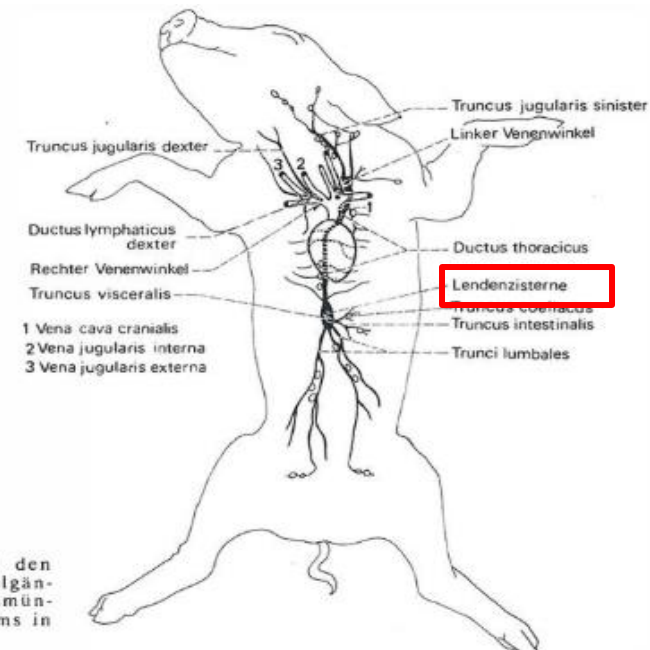


Abb. 233. Schema von den großen Lymphsammelgängen und von der Einmündung des Lymphsystems in das Venensystem

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

CISTERNA CHYLI (LENDENCISTERNE):

- aus den Baueingeweiden stammende Lympfsammelgänge, schließen sich von ventral oder rechts kommend der Cisterna chyli an

dazu zählen:

- Truncus visceralis (Flfr, Schw, Wdk.)
- Truncus intestinalis
- Truncus coeliacus (Pfd.)

10 **DUCTUS THORACICUS.** Starts near (Ru) or in Hiatus aorticus, courses along the right-dorsal (occasionally: left-dorsal) side of Aorta thoracica, then to the left in Mediastinum craniale, joins V. cava cranialis or one of its branches at Apertura thoracis cranialis. May locally be plural. A C

13 **CISTERNA CHYLI.** Lymphatic sac dorsal to Aorta abdominalis. Collects lymph from Truncus visceralis (or Truncus coeliacus and Truncus intestinalis) and Trunci lumbales. Discharges into Ductus thoracicus. C

14 **Trunci lumbales.** Paired, collect lymph from pelvic limbs and pelvis to Cisterna chyli. May be plexiform (ca, su). C

15 **Truncus visceralis.** Unpaired, collects lymph from Truncus coeliacus and Truncus intestinalis. May be absent (eq, sometimes cap) or plexiform (Car). C

16 **Truncus coeliacus [coeliacus].** Collects lymph from Lymphocentrum coeliacum, empties in Truncus visceralis (Car, su, Ru) or Cisterna chyli (eq). C

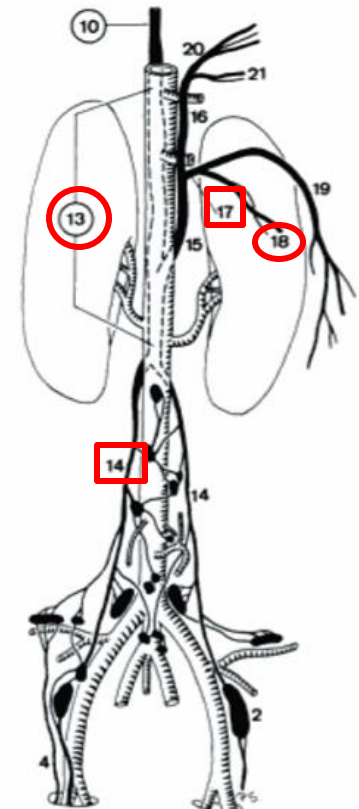
17 **Truncus intestinalis.** Collects lymph from Lymphocentrum mesentericum craniale, empties in Truncus visceralis (Car, su, Ru) or Cisterna chyli (eq, sometimes cap). May be plexiform (Car). C

18 **Truncus colicus.** Collects lymph from Lymphonodi colici, empties in Truncus intestinalis or Truncus visceralis (sometimes bo). May be plural (Car, su). C

19 **Truncus jejunalis.** Collects lymph from Lymphonodi jejunales, empties in Truncus intestinalis. May be plural (Car). C

20 **Truncus gastricus.** Collects lymph from the gastric lymph nodes, empties in Truncus coeliacus or Cisterna chyli (Ru), sometimes Truncus intestinalis (cap). C

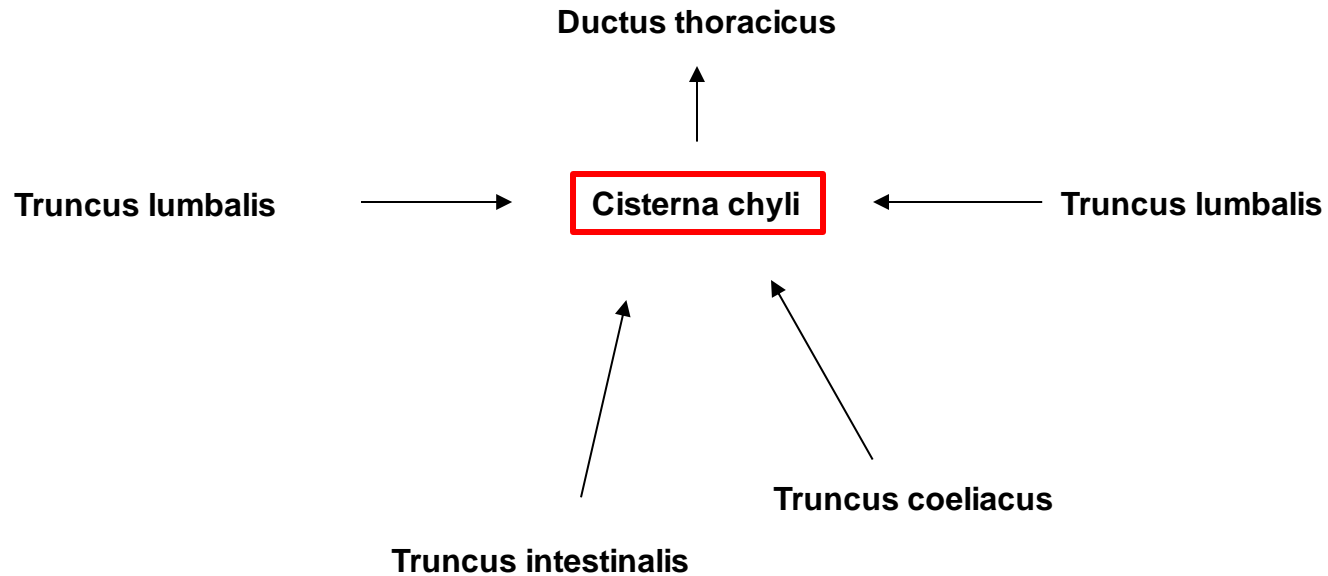
21 **Truncus hepaticus.** Collects lymph from Lymphonodi hepatici and hepatici accessorii. Joins Truncus coeliacus or Truncus intestinalis (Ru).



C Lymph vessels in relation to Aorta abdominalis, ventral aspect (su)

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

CISTERNA CHYLI (LENDENCISTERNE):



Lymphgefäßsystem der Brustwand und der Brusteingeweide

TRUNCUS VISCERALIS:

- Eingeweidelymphstamm
- von den Baueingeweiden kommen
- Vasa efferentia aus der Lc. coeliacum, Lc. mesentericum cran. bilden
- **Flfr., Schw., Wdk.**

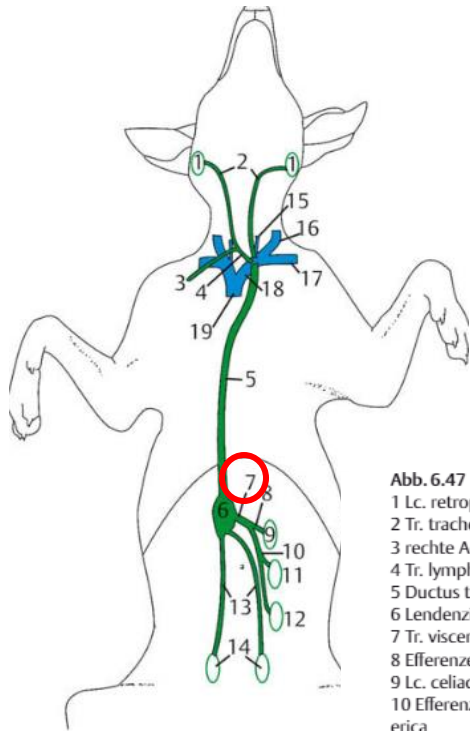


Abb. 6.47 Schema der Lymphsammelstämme beim Hund

1 Lc. retropharyngeum	11 Lc. mesentericum cranic
2 Tr. trachealis	12 Lc. mediastinale caudale
3 rechte Achsellymphgefäße	13 Tr. lumbalis
4 Tr. lymphaticus dexter	14 Lnn. iliaci mediales des Lc. iliosacrale
5 Ductus thoracicus	15 V. jugularis interna
6 Lendenzisterne (Cisterna chyli)	16 V. jugularis externa
7 Tr. visceralis	17 V. subclavia
8 Efferenzen des Lc. coeliacum	18 V. brachiocephalica,
9 Lc. coeliacum	19 V. cava cranialis
10 Efferenzen der Lcc. mesenterica	

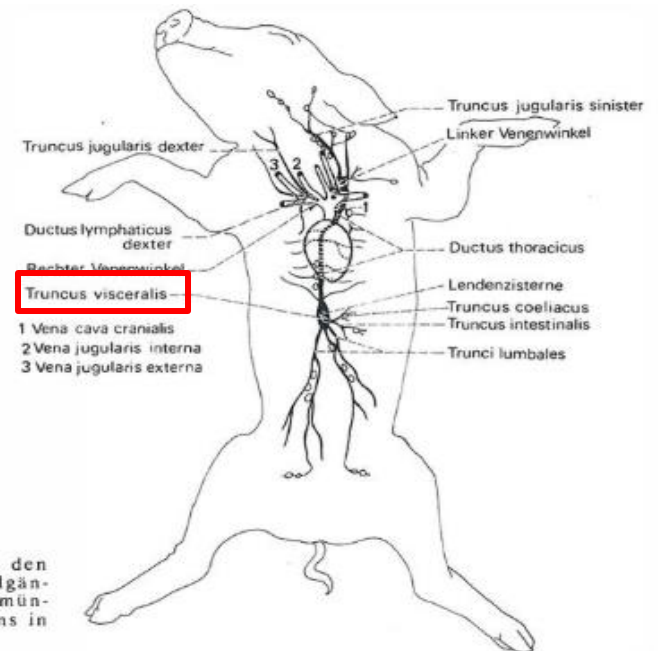


Abb. 233. Schema von den großen Lymphsammelgängen und von der Einmündung des Lymphsystems in das Venensystem

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

TRUNCUS LUMBALIS:

- paarig ausgebildeter Lympfsammelgang (Truncus lymphaticus) im Lendenbereich aller Haussäugetiere

a) rechter Stamm (Truncus lumbalis dexter)

b) linker Stamm (Truncus lumbalis sinister)

erhalten ihre Lymphe aus:

- den kaudalen Lymphknoten der Bauch- und Beckenhöhle
- den Hintergliedmaßen
- führen sie der Lendenzisterne (Cisterna chyli) zu

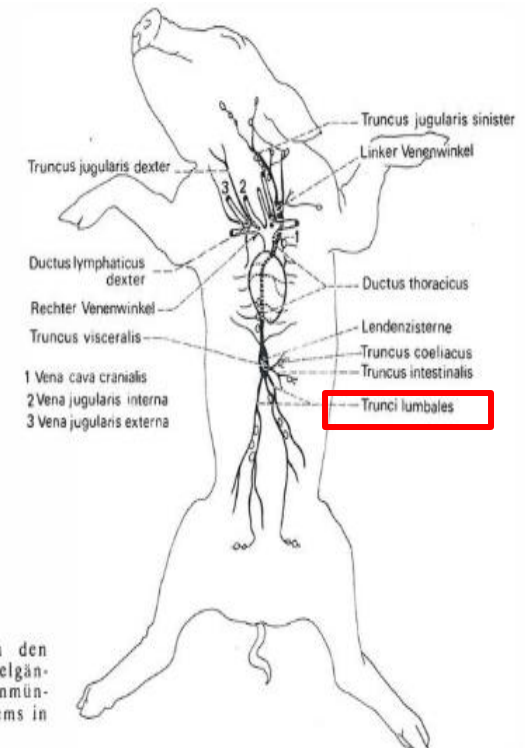


Abb. 233. Schema von den großen Lympfsammelgängen und von der Einmündung des Lymphsystems in das Venensystem

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

TRUNCILUMBALES:

folgende Lymphzentren entsenden ihre Lymphe an die Trunci lumbales:

- Lymphocentrum lumbale
- Lymphocentrum iliosacrale
- Lymphocentrum inguinale profundum
- Lymphocentrum inguinale superficiale
- Lymphocentrum ischiadicum
- Lymphocentrum popliteum

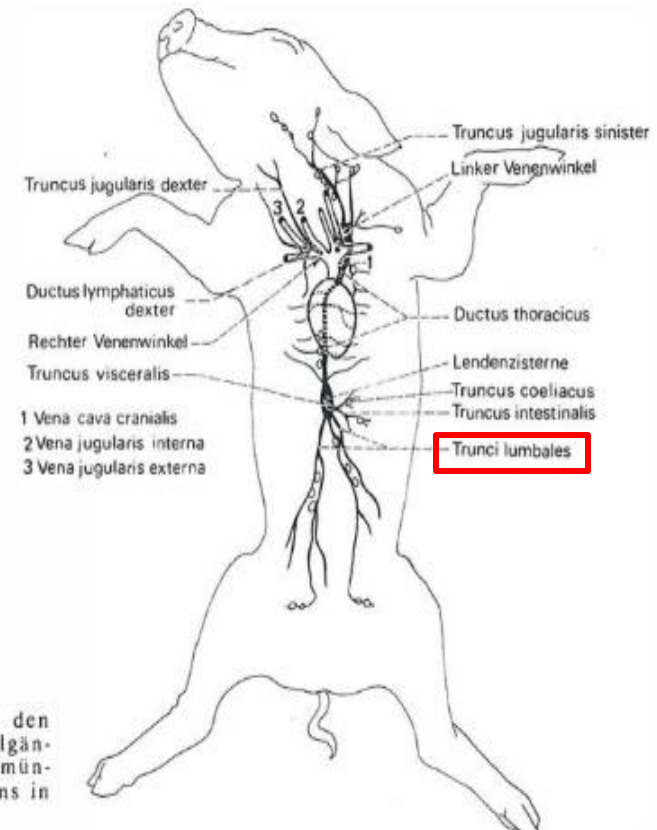
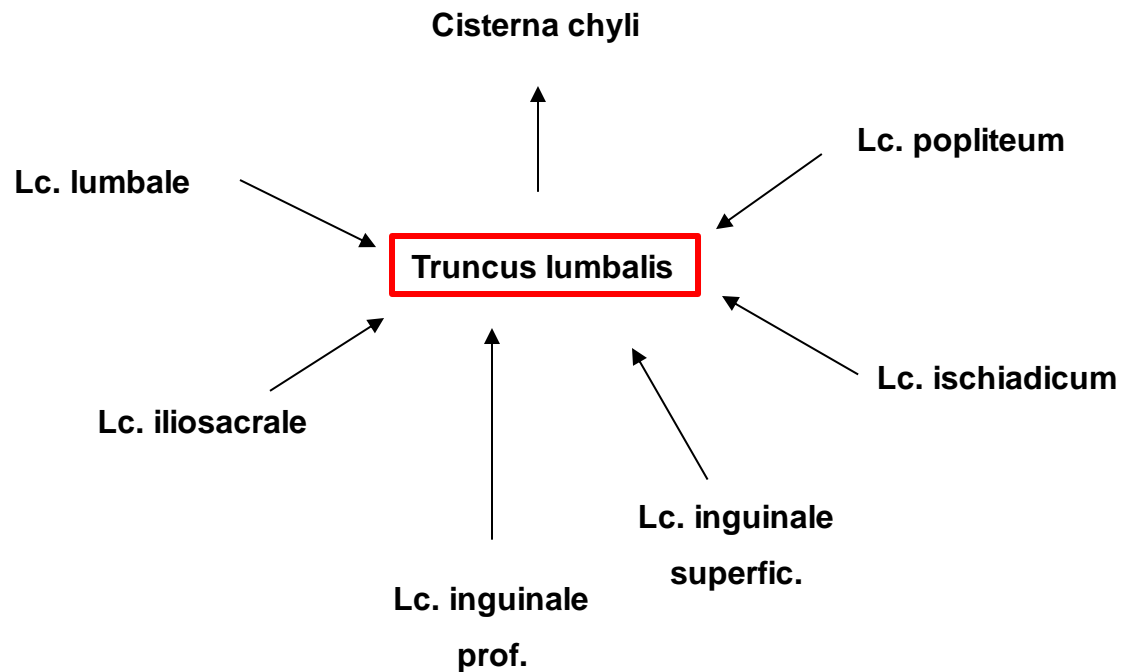


Abb. 233. Schema von den großen Lympfsammelgängen und von der Einmündung des Lymphsystems in das Venensystem

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

TRUNCILUMBALES:



LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

TRUNCUS INTESTINALIS, TRUNCUS COELIACUS:

- beim Pfd.
- von den Baueingeweiden kommen
- Lymphsammelgänge
- Truncus coeliacus entwickelt sich aus den Vasa efferentia der Nll. coeliaci
- Truncus intestinalis entsteht aus dem Zusammenfluß der Vasa efferentia der Nll. mesenterici craniales

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

DUCTUS THORACICUS (BRUSTLYMPHGANG):

- leitet die Lymphe aus der Lendenzisterne in den linken Venenwinkel
- nimmt die Vasa efferentia benachbarter Lymphozentren auf

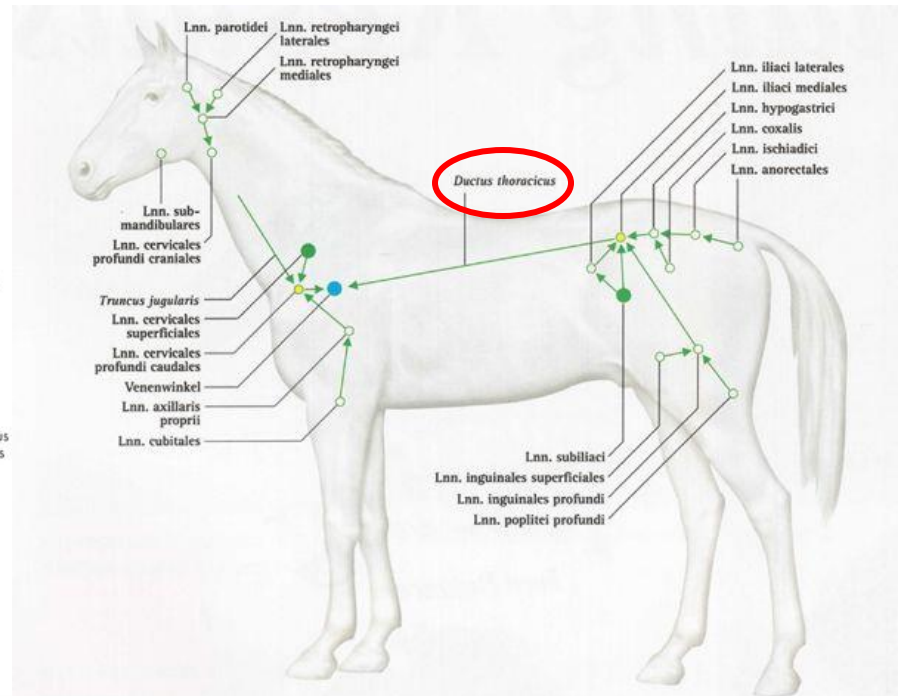
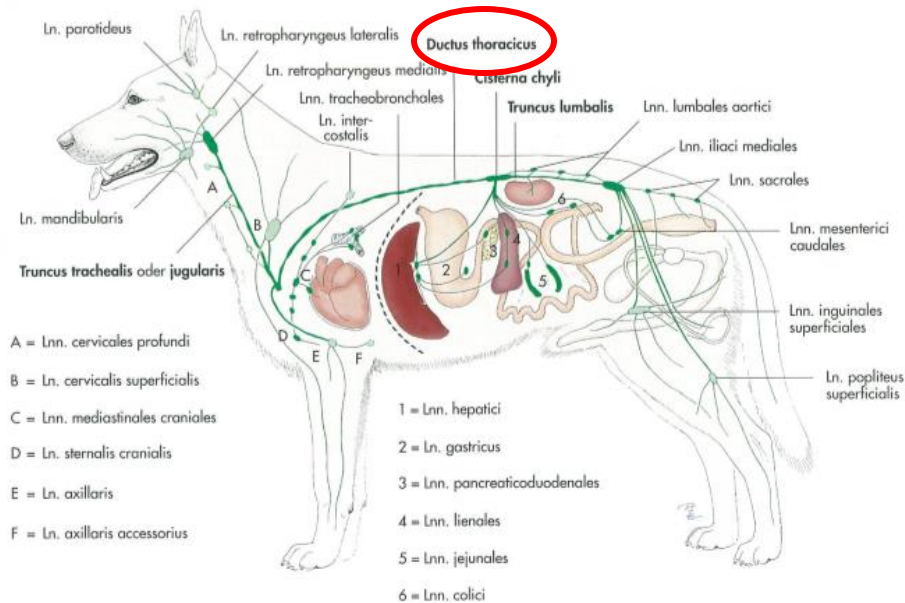


Abb. 13-12. Schematische Darstellung des lymphatischen Systems des Hundes (Übersicht), nach Budras, Fricke und Richter, 1996.

Diagram illustrating the major groups of lymph nodes in the equine, and the deep drainage pathways returning to the superficial cervical lymph nodes

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

DUCTUS THORACICUS (BRUSTLYMPHGANG):

DER URSPRUNG – aus der Lendenzisterne (Cisterna chyli)

- beim Wdk., Schw. – ein Stamm
- bei Hd., Pfd. - doppelt

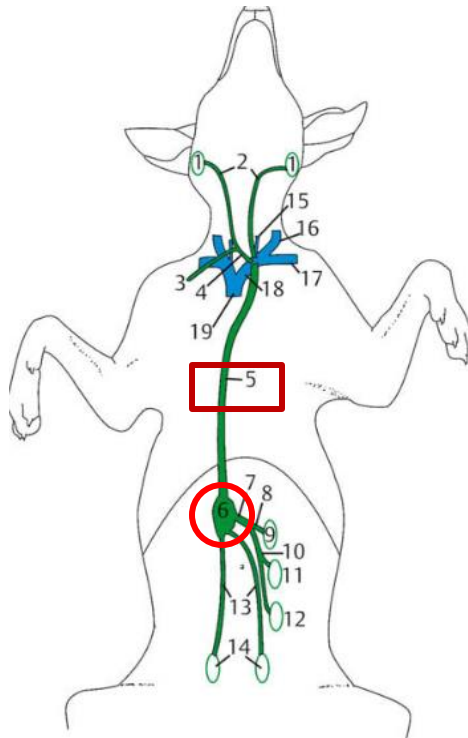


Abb. 6.47 Schema der Lympfsammelstämme beim Hund

1 Lc. retropharyngeum	11 Lc. mesentericum craniale
2 Tr. trachealis	12 Lc. mediastinale caudale
3 rechte Achsellymphgefäße	13 Tr. lumbalis
4 Tr. lymphaticus dexter	14 Lnn. iliaci mediales des Lc. iliosacrale
5 Ductus thoracicus	15 V. jugularis interna
6 Lendenzisterne (Cisterna chyli)	16 V. jugularis externa
7 Tr. visceralis	17 V. subclavia
8 Efferenzen des Lc. celiacum	18 V. brachiocephalica
9 Lc. celiacum	19 V. cava cranialis
10 Efferenzen der Lcc. mesenterica	

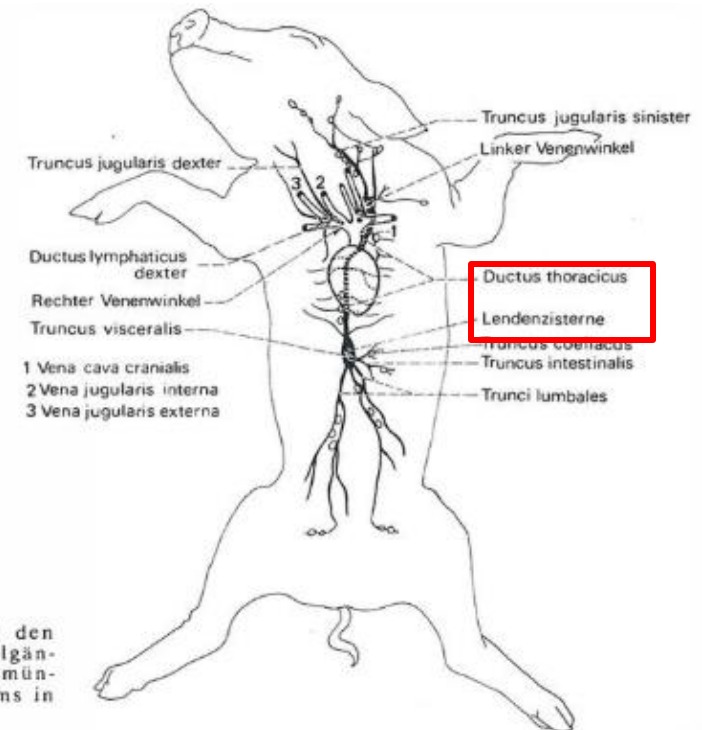
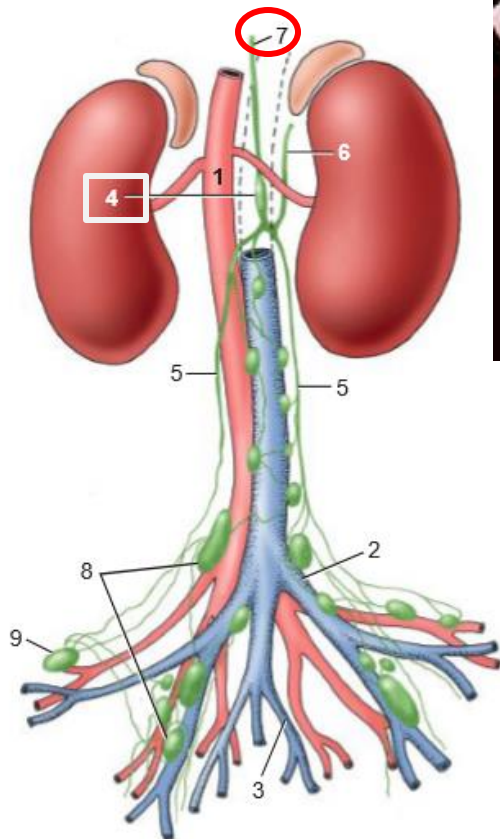
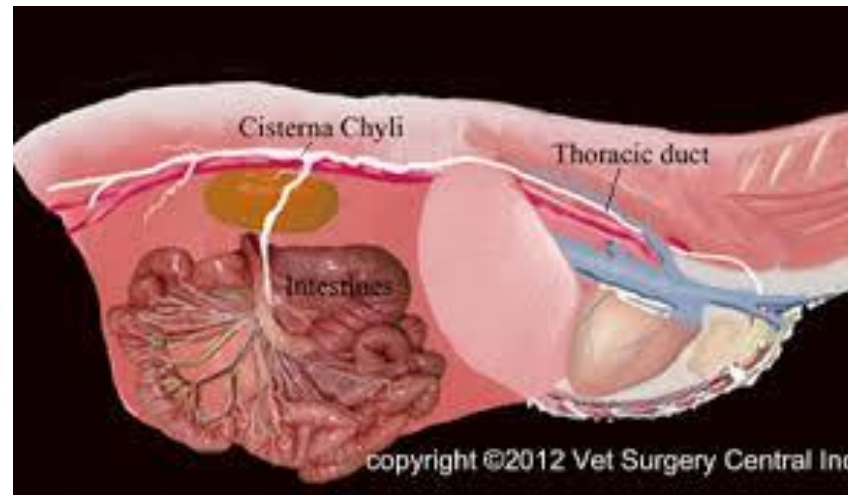


Abb. 233. Schema von den großen Lympfsammelgängen und von der Einmündung des Lymphsystems in das Venensystem

<https://www.thieme-connect.de/products/ebooks/pdf/10.1055/b-0037-148431.pdf>

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

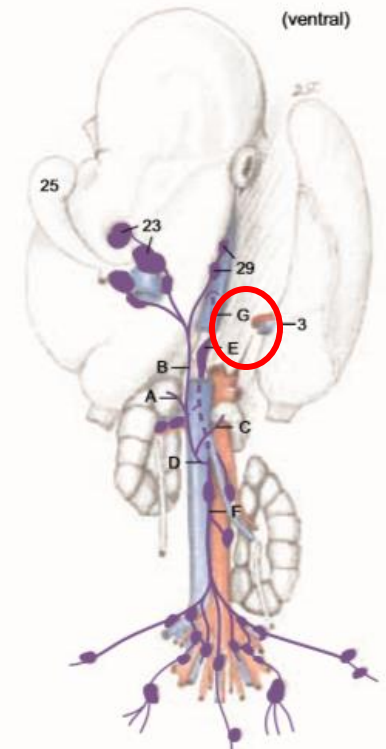
Lymph nodes and Lymphatic vessels*



 Porcine: Lymph Nodes of the Sublumbar Area

1. Aorta
2. External iliac vein
3. Internal iliac vein
4. Cisterna chyli
5. Lumbar trunks and lumbar aortic nodes
6. Intestinal trunk
7. Thoracic duct
8. Medial iliac nodes
9. Lateral iliac node

Note: Ventral view.



Bo.

The lymph drainage is through the **intestinal trunk (A)** which joins the **hepatic trunk (B)**, and after receiving the **gastric trunk (C)** with lymph from the stomach and spleen, becomes the **visceral trunk (D)** and enters the **cisterna chyli (E)**. The valveless cisterna chyli receives the **lumbar trunk (F)**, which drains the lymph from the pelvic limbs, genital organs, and the pelvis.

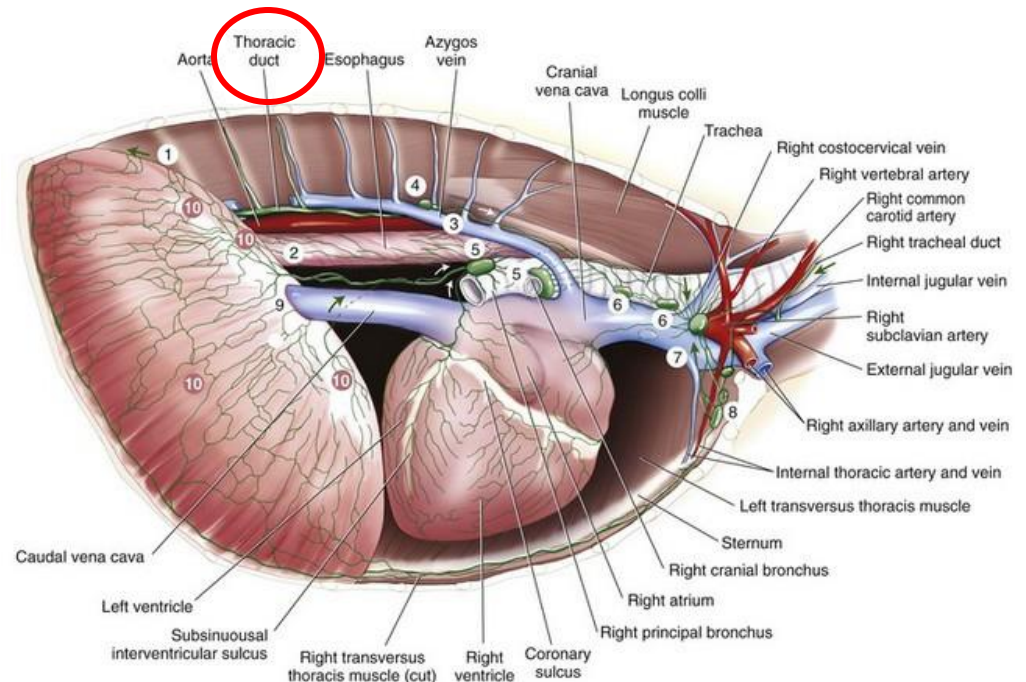
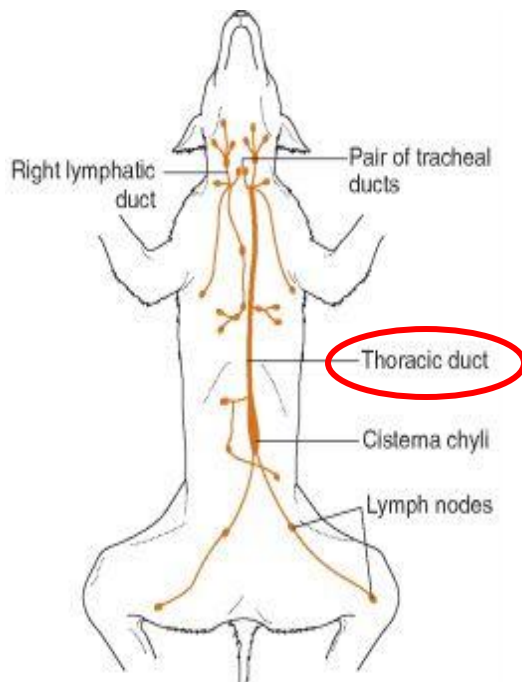
The **thoracic duct (G)**, emerging cranially from the cisterna chyli, passes in the ox through a slit in the muscle of the right crus of the diaphragm into the thorax. It does not pass through the aortic hiatus as in the horse and dog. For lymph nodes of the pelvic cavity, see also pp. 82-83.

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

DUCTUS THORACICUS (BRUSTLYMPHGANG):

b. DER DURCHTRITT DAS ZWERCHFELL:

- **bei Pfd., Flfr., Schw.,** - stets mit der Aorta durch den Hiatus aorticus
- **beim Wdk.** - durch eine in der rechten Lumbalportion des Zwerchfells gelegen Muskelspalte in den Brustraum



1. To cranial lumbar lymph node
2. Lymph vessels of the esophagus that enter the abdominal cavity
3. Lymph vessels of the esophagus that turn to the left and empty into the left tracheobronchial lymph node
4. Intercostal lymph node
5. Middle and right tracheobronchial lymph nodes

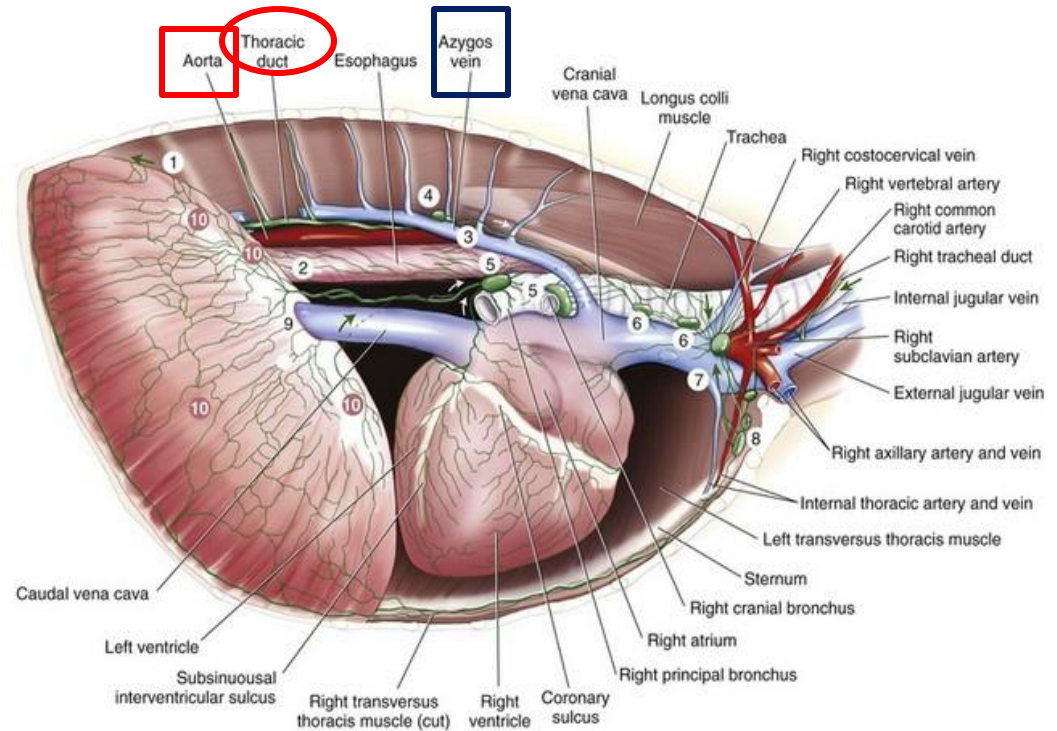
6. Cranial mediastinal lymph nodes
7. Efferent vessel of a left cranial mediastinal lymph node
8. Cranial sternal lymph node
9. To gastric, splenic, hepatic or cranial lumbar lymph nodes
10. Pars costalis, pars lumbalis and tendinous parts of the diaphragm

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIFE

DUCTUS THORACICUS (BRUSTLYMPHGANG):

c. DER RECHTE oder POSTKARDIALE ABSCHNITT :

- liegt rechts und dorsal der Aorta thoracica
- liegt ventral der V. azygos dext.



1. To cranial lumbar lymph node
2. Lymph vessels of the esophagus that enter the abdominal cavity
3. Lymph vessels of the esophagus that turn to the left and empty into the left tracheobronchial lymph node
4. Intercostal lymph node
5. Middle and right tracheobronchial lymph nodes

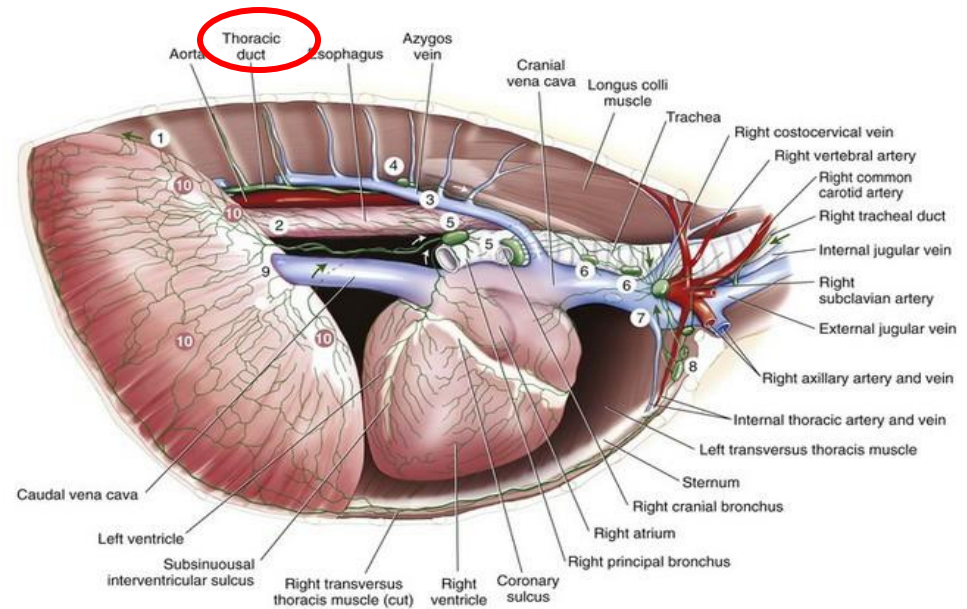
6. Cranial mediastinal lymph nodes
7. Efferent vessel of a left cranial mediastinal lymph node
8. Cranial sternal lymph node
9. To gastric, splenic, hepatic or cranial lumbar lymph nodes
10. Pars costalis, pars lumbalis and tendinous parts of the diaphragm

LYMPHGEFÄßSYSTEM DER BRUSTWAND UND DER BRUSTEINGEWEIDE

DUCTUS THORACICUS (BRUSTLYMPHGANG):

d. DER ÜBERTRITT DES DUCTUS THORACICUS **VON RECHTS NACH LINKS** in den LINKEN oder PRÄKARDIALEN ABSCHNITT erfolgt:

- a. beim Pfd. in Höhe des 6. Brustwirbels
- b. bei den übrigen Hsgt. in Höhe des 5. Brustwirbels



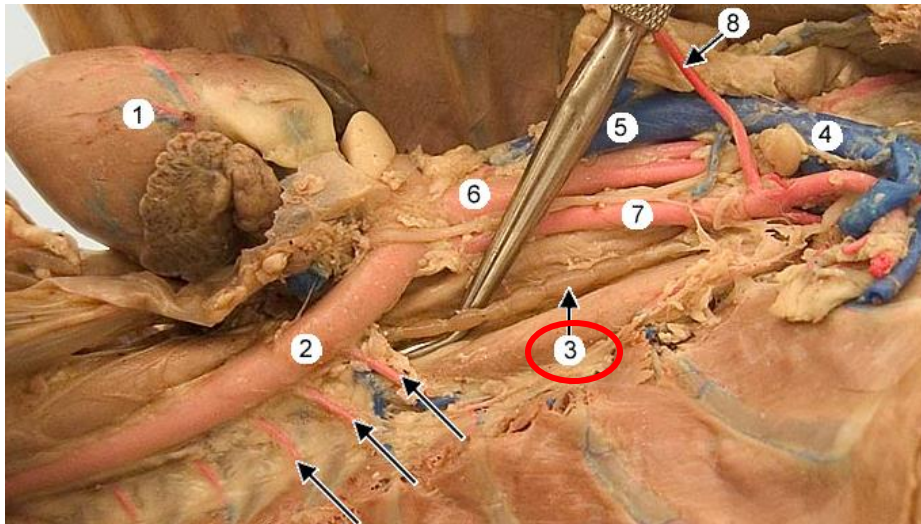
1. To cranial lumbar lymph node
2. Lymph vessels of the esophagus that enter the abdominal cavity
3. Lymph vessels of the esophagus that turn to the left and empty into the left tracheobronchial lymph node
4. Intercostal lymph node
5. Middle and right tracheobronchial lymph nodes
6. Cranial mediastinal lymph nodes
7. Efferent vessel of a left cranial mediastinal lymph node
8. Cranial sternal lymph node
9. To gastric, splenic, hepatic or cranial lumbar lymph nodes
10. Pars costalis, pars lumbalis and tendinous parts of the diaphragm

LYMPHGEFÄßSYSTEM DER BRISTWAND UND DER BRUSTEINGEWEIFE

DUCTUS THORACICUS (BRUSTLYMPHGANG):

e. DIE MÜNDUNG des Ductus thoracicus:

- in den linken Venenwinkel
- in der distale Ende der V. cava cranialis an der Abzweigstelle der V. jugularis sin. oder V. subclavia sin.



Cat dissection, left dorsolateral view of the cranial thorax. The heart (1) and the **descending aorta** (2) can be seen. The latter gives rise to dorsal **intercostal arteries** (arrows). The probe has elevated the **thoracic duct** (3) as it travels to enter the dorsal surface of the **left brachiocephalic vein** (4).

Also identify: the **cranial vena cava** (5), the **brachiocephalic trunk** (6), and the **left subclavian a.** (7) which gives rise to the **left internal thoracic a.** (8).

<http://vanat.cvm.umn.edu/carnLabs/Lab11/lmg11-12.html>

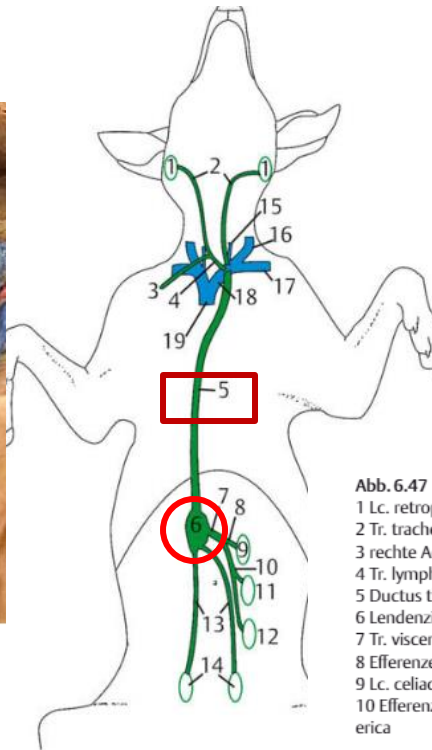


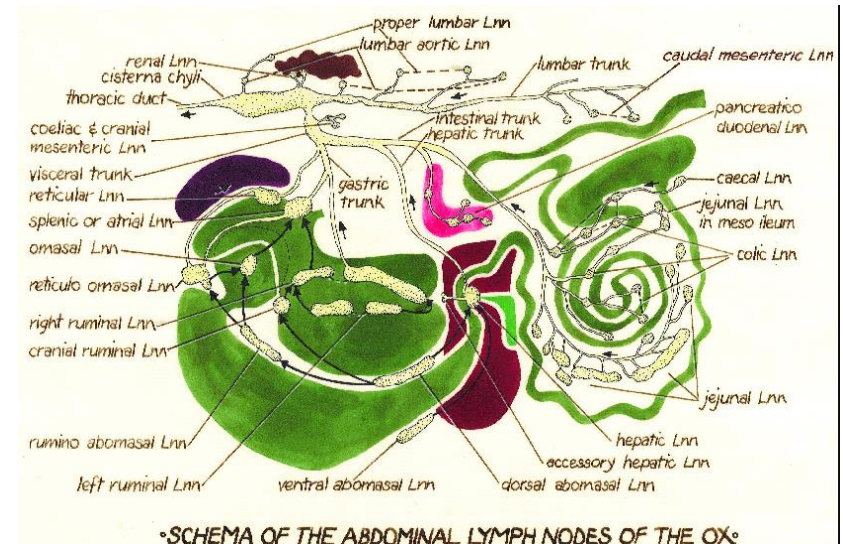
Abb.6.47 Schema der Lympfsammelstämme beim Hund

- | | |
|------------------------------------|---|
| 1 Lc. retropharyngeum | 11 Lc. mesentericum craniale |
| 2 Tr. trachealis | 12 Lc. mediastinale caudale |
| 3 rechte Achsellymphgefäße | 13 Tr. lumbalis |
| 4 Tr. lymphaticus dexter | 14 Lnn. iliaci mediales des Lc. mesosacrale |
| 5 Ductus thoracicus | 15 V. jugularis interna |
| 6 Lendenzisterne (Cisterna chyli) | 16 V. jugularis externa |
| 7 Tr. visceralis | 17 V. subclavia |
| 8 Efferenzen des Lc. celiacum | 18 V. brachiocephalica, |
| 9 Lc. celiacum | 19 V. cava cranialis |
| 10 Efferenzen der Lcc. mesenterica | |

<https://docplayer.org/91328709-Salomon-geyer-gille-anatomie-fuer-die-tiermedizin.html>

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

- a) die dorsale Bauchwand
- b) die in der Lendengegend entstandenen Organe
- c) die Baueingeweide werden von vier Lymphzentren versorgt:
 1. Lc. lumbale
 2. Lcc. coeliacum
 3. Lcc. mesentericum craniale
 4. Lcc. mesentericum caudale bedienen Gebiete, die von den gleichnamigen Arterien vaskularisiert werden



•SCHEMA OF THE ABDOMINAL LYMPH NODES OF THE OX•

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

1. Lc. lumbale :

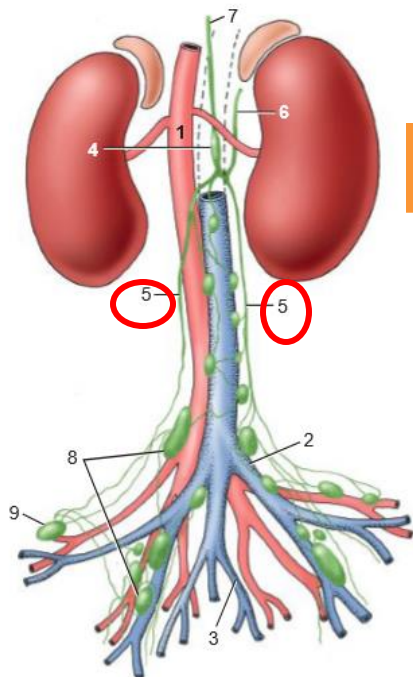
– für die Lendengegend

a. Nll. lumbales aortici (Lendenlymphknoten):

- liegen in langer Kette unter der Lendenwirbelsäule an der Aorta abdominalis

- für die tiefen Schichten der dorsalen Bauchwand zuständig

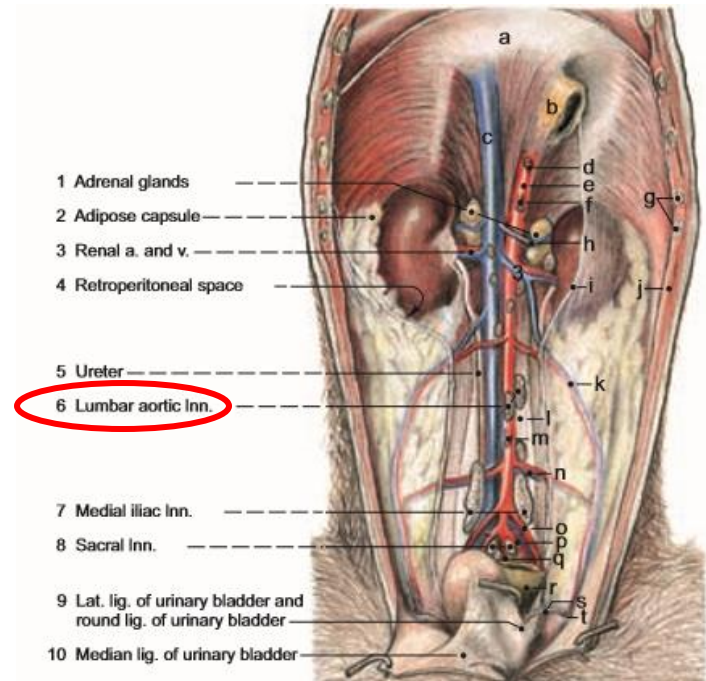
- beim Schw., Wdk., Pfd., sie werden bei Erkrankung des Bauchfells unschädlich beseitigt



Porcine: Lymph Nodes of the Sublumbar Area

1. Aorta
2. External iliac vein
3. Internal iliac vein
4. Cisterna chyli
5. Lumbar trunks and lumbar aortic nodes
6. Intestinal trunk
7. Thoracic duct
8. Medial iliac nodes
9. Lateral iliac node

Note: Ventral view.



LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

1. Lc. lumbale :

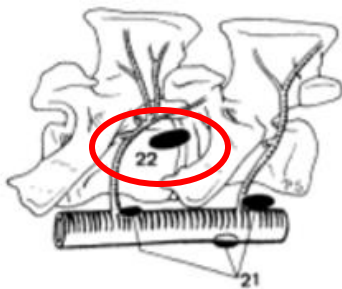
b. Nll. lumbales proprii:

- beim Rd.

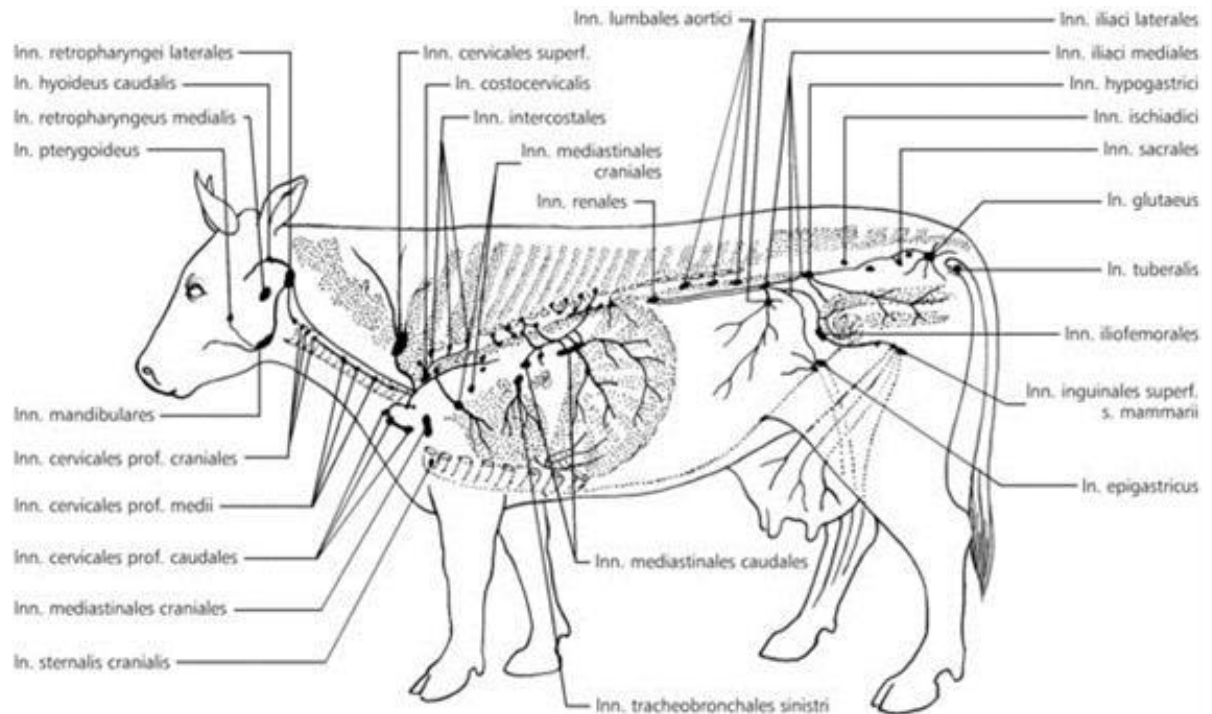
liegen zwischen :

a. der letzten Rippe und dem 1. Lendenquerfortsatz

b. den Querfortsätzen des L1-L6



E Lymph nodes in relation to lumbar vertebrae IV and V, left aspect (bo)



LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIDE

1. Lc. lumbale :

c. NII. renales (Nierenlymphknoten):

- mehrere von NII. lumbales aortici filtrieren die Nierenlymphe
- in der Nähe des Nierenhilus
- deren Untersuchung wird bei der Fleischschau von Schw., Wdk., Pfd. erforderlich
- **fehlen bei Flfr.**

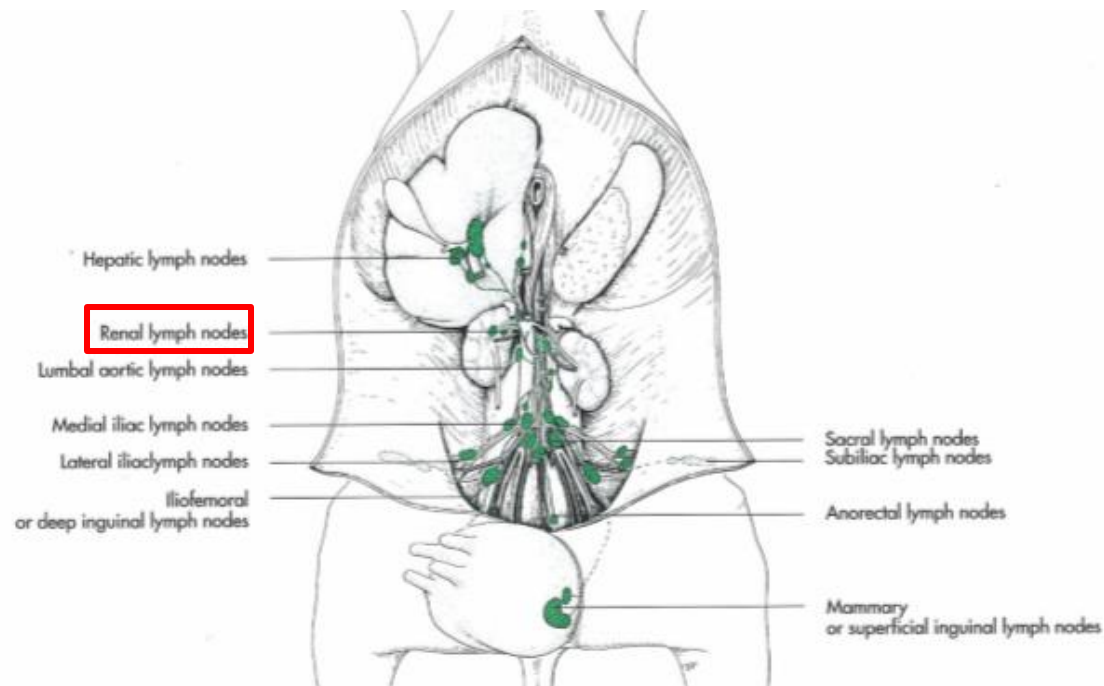


Fig. 13-14. Lymph nodes and lymph collecting ducts of the abdominal cavity of the ox, ventral aspect (Baum, 1912).

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIDE

einzelne Lymphknoten des Lc. lumbale beim Schw., Pfd. in das Keimdrüsengekröse vorrücken:

- a) beim Pfd. nennen sie Nll. ovarici im Lig. suspensorium ovarii**

- b) beim Schw. Nll. testicularis in Gekröse der A. und V. spermatica int.**

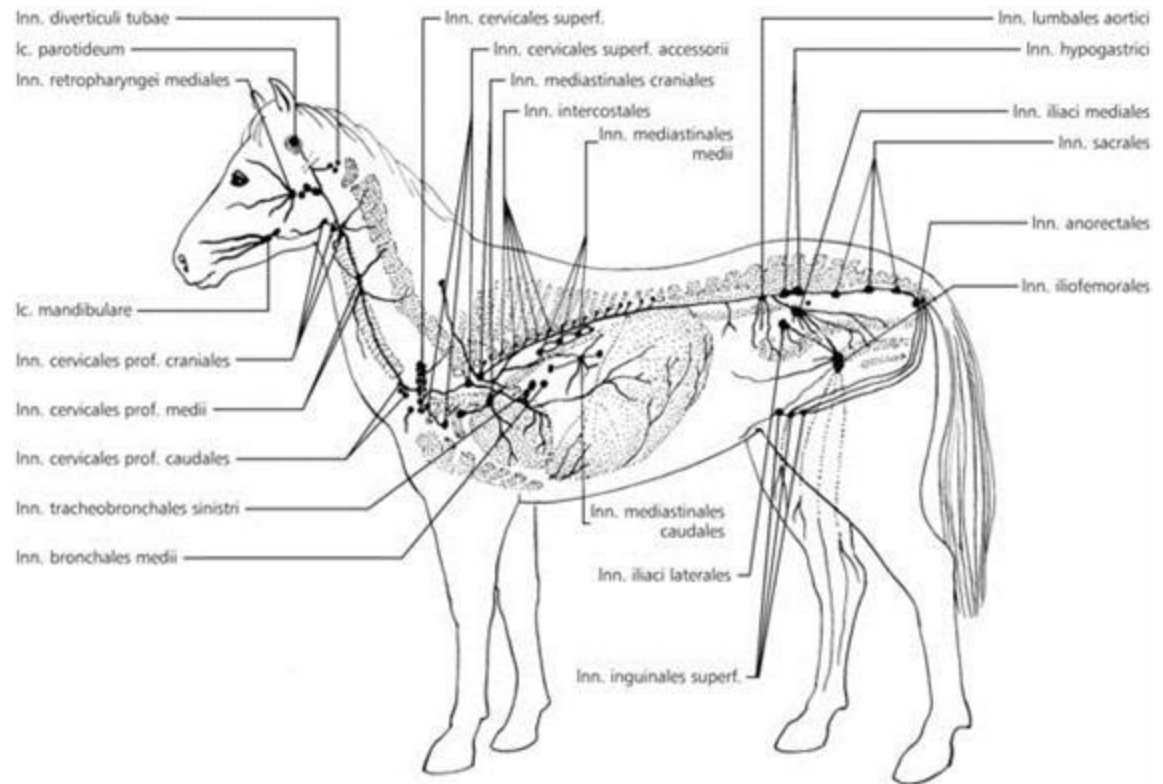
- c) beim Schw. ein Nl. phrenicoabdominalis am lateralen Rand des M. iliopsoas, und kaudal der A. und V. abdominalis cran. unter dem Bauchfell**

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

ZUFLUßGEBIET des Lc. lumbalis:

1. die letzten Brust- und Lendenwirbel
 2. die Beckenknochen
 3. die Lendenmuskulatur
 4. die Fascia lumbodorsalis
 5. das Bauchfell im Lendenbereich
- bei Hd., Pfd.

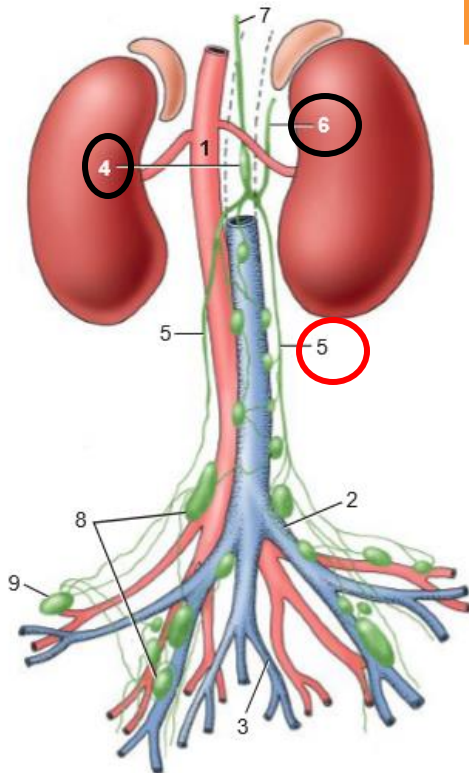
- Pleura costalis,
- die Nieren, Harnleiter, Harnbalse
- die weibliche Harnröhre
- die Nebennieren
- den Ovarium, Tuba uterina



LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

ABFLUß DER LYMPHE aus dem Lc. lumbale:

- über die Trunci lumbales – in die Lendenzisterne



Porcine: Lymph Nodes of the Sublumbar Area

1. Aorta
2. External iliac vein
3. Internal iliac vein
4. Cisterna chyli
5. Lumbar trunks and lumbar aortic nodes
6. Intestinal trunk
7. Thoracic duct
8. Medial iliac nodes
9. Lateral iliac node

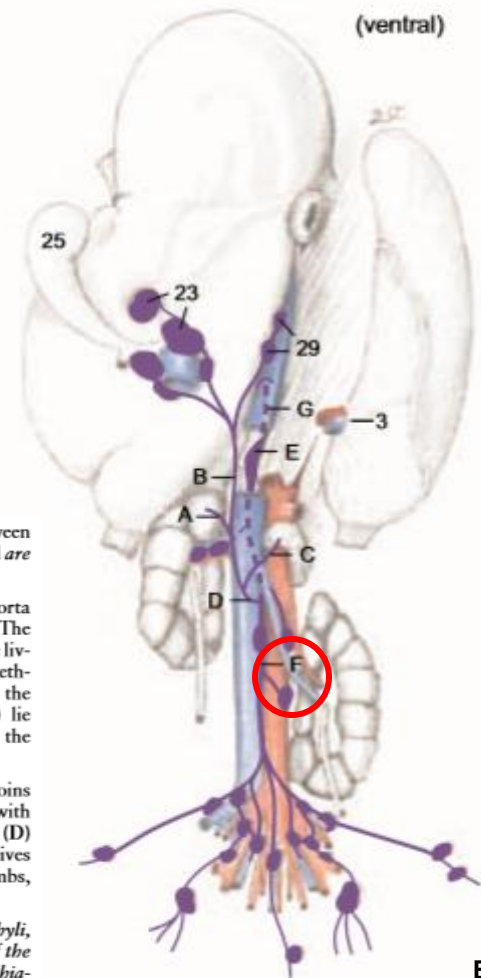
Note: Ventral view.

The 1–7 **splenic lnn.** (p. 73) lie dorsocranial to the spleen between the atrium of the rumen and the left crus of the diaphragm, and are regularly examined in meat inspection.

The 6–15 **hepatic (portal) lnn.** (23) are grouped around the porta of the liver and are regularly examined in meat inspection. The accessory hepatic lnn. (29) are found on the dorsal border of the liver near the caudal vena cava. The outflow of lymph occurs, together with that of the dorsal and ventral abomasal lnn., through the hepatic trunk. The **pancreaticoduodenal lnn.** (see p. 76, I) lie between the pancreas and descending duodenum and between the pancreas and transverse colon.

The lymph drainage is through the **intestinal trunk (A)** which joins the **hepatic trunk (B)**, and after receiving the **gastric trunk (C)** with lymph from the stomach and spleen, becomes the **visceral trunk (D)** and enters the **cisterna chyli (E)**. The valveless cisterna chyli receives the **lumbar trunk (F)**, which drains the lymph from the pelvic limbs, genital organs, and the pelvis.

The **thoracic duct (G)**, emerging cranially from the cisterna chyli, passes in the ox through a slit in the muscle of the right crus of the diaphragm into the thorax. It does not pass through the aortic hiatus as in the horse and dog. For lymph nodes of the pelvic cavity, see also pp. 82–83.



Bo.

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

ABFLUß DER LYMPHE aus dem Lc. lumbale:

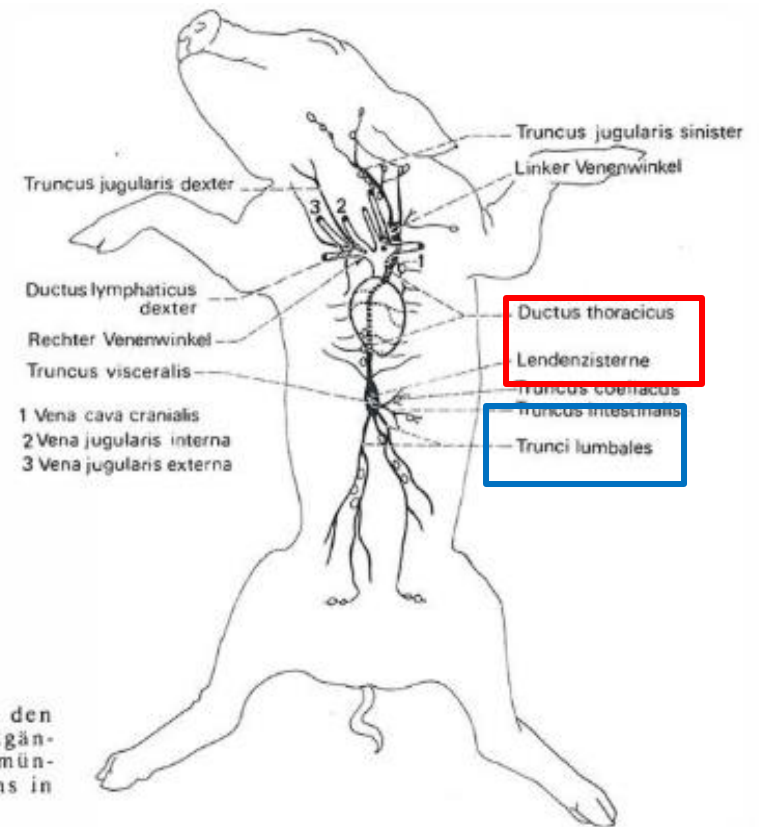
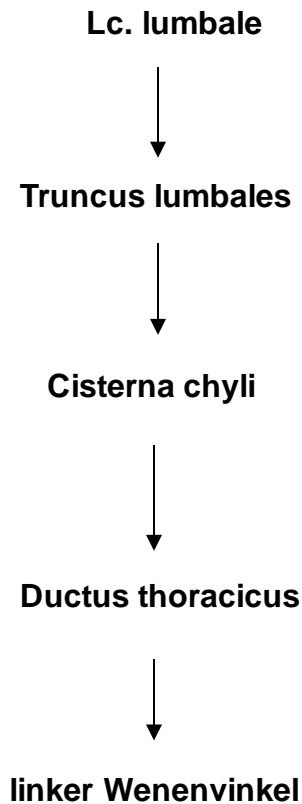
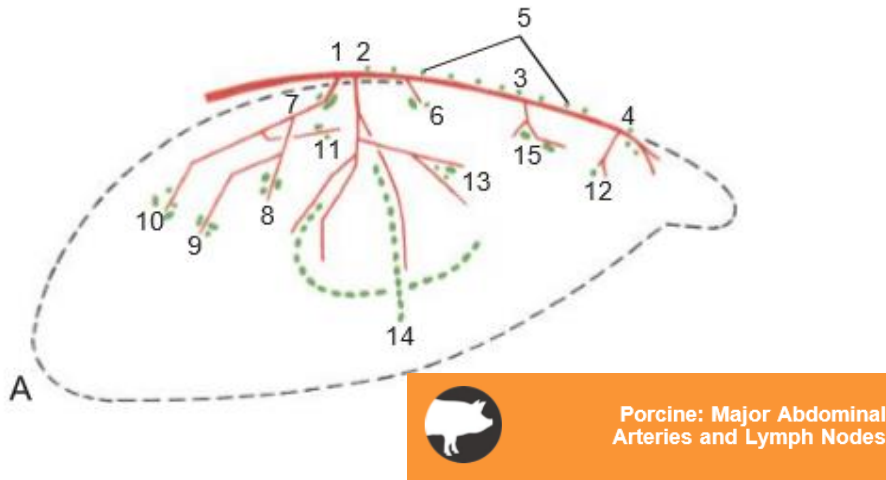


Abb. 233. Schema von den großen Lymphsammelgängen und von der Einmündung des Lymphsystems in das Venensystem

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIDE

2. Lymphocentrum coeliacum:

- sind jene Organe tributär, die in intrathorakalen Teil der Bauchhöhle gelegen sind
- die Lymphbahnen und die Lymphknoten folgen hier die Ästen der A. coeliaca



1. Celiac artery
2. Cranial mesenteric artery
3. Caudal mesenteric artery
4. Deep circumflex iliac artery
5. Lumbar aortic nodes
6. Renal nodes
7. Celiac nodes
8. Splenic nodes
9. Gastric nodes
10. Hepatic nodes
11. Pancreaticoduodenal nodes
12. Lateral iliac nodes
13. Ileocolic nodes
14. Colic nodes
15. Caudal mesenteric nodes

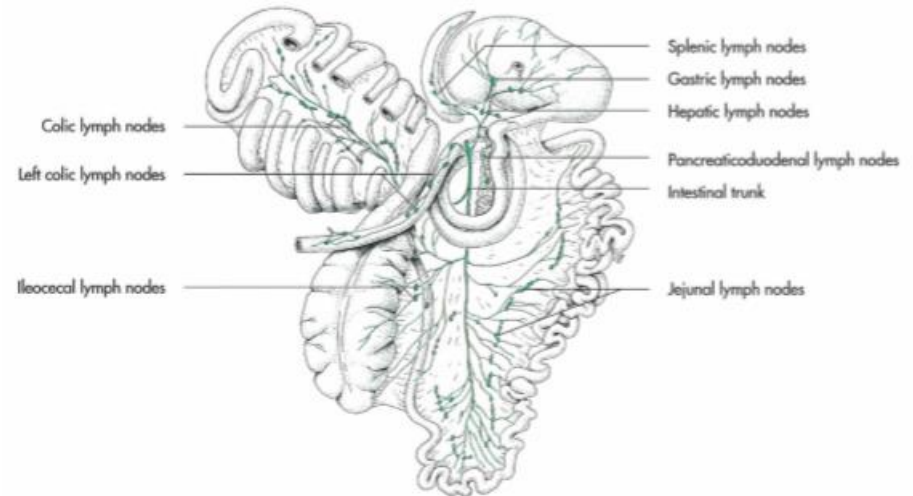


Fig. 13-13. Lymph nodes and lymph vessels of the intestine of the pig, schematic (Najbert, 1982).

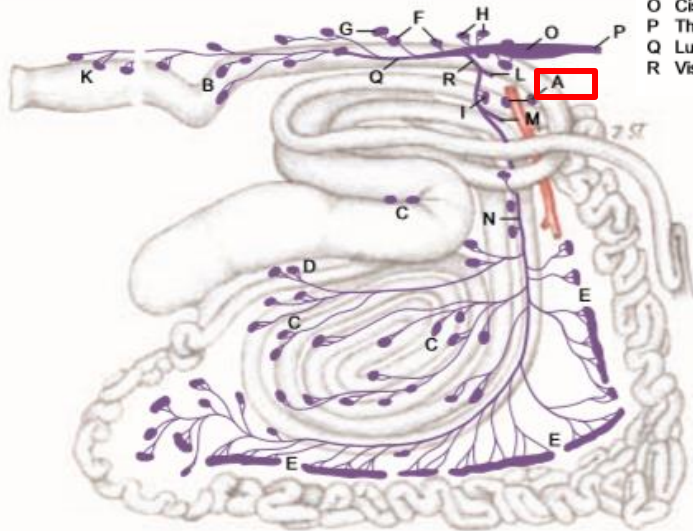
LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

2. Lymphocentrum coeliacum:

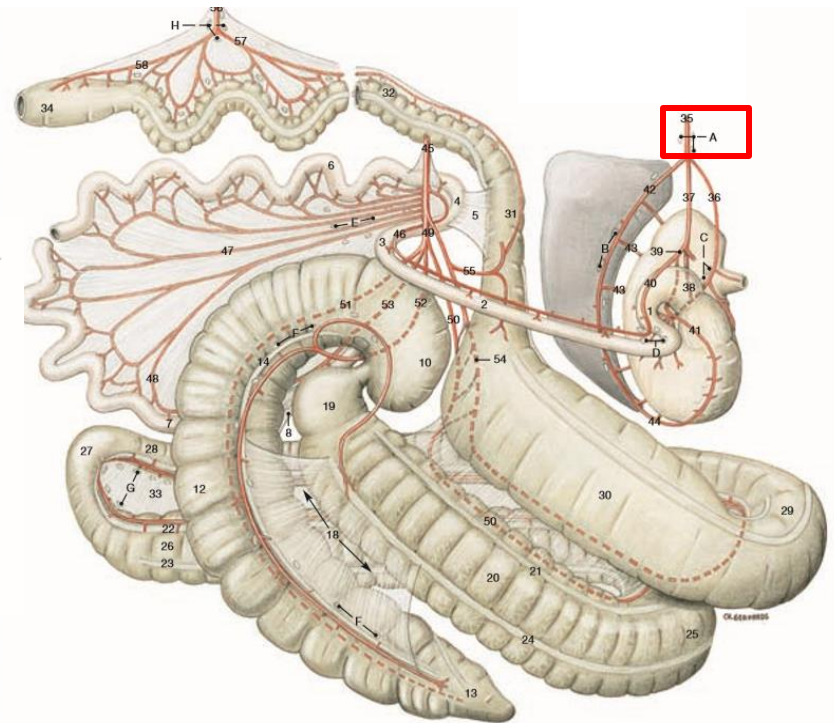
a. Nll. coeliaca (Gekröselymphknoten):

– am Ursprung der A. coeliaca

- A Celiac and cran. mesenteric Inn.
- B Caud. mesenteric Inn.
- C Colic Inn.
- D Cecal Inn.
- E Jejunal Inn.
- F Aortic lumbar Inn.
- G Proper lumbar Inn.
- H Renal Inn.
- I Pancreaticoduodenal Inn.
- K Anorectal Inn.
- L Gastric trunk
- M Hepatic trunk
- N Intestinal trunk
- O Cisterna chyli
- P Thoracic duct
- Q Lumbar trunk
- R Visceral trunk



Bo.



Part of Cecum and Right Ventral Colon, right lateral view

Eq.

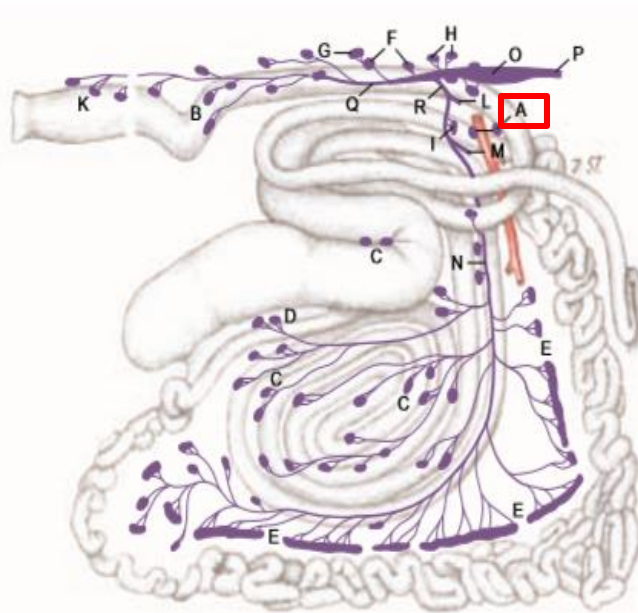
- A Celiac lymph nodes
- B Splenic lymph nodes
- C Gastric lymph nodes
- D Pancreaticoduodenal lymph nodes
- E Jejunal lymph nodes
- F Cecal lymph nodes
- G Colic lymph nodes
- H Caudal mesenteric lymph nodes

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

2. Lymphocentrum coeliacum:

a. Nll. coeliaca (Gekröselymphknoten):

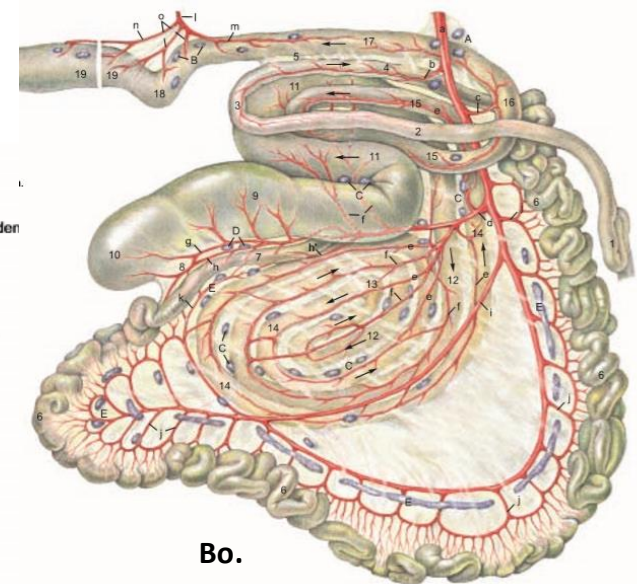
- beim Wdk. – die Nll. coeliaca mit den Nll. mesenterici craniales zu einer Gruppe vereint



Bo.

A Celiac and cran. mesenteric Inn.

- B Caud. mesenteric Inn.
- C Colic Inn.
- D Cecal Inn.
- E Jejunal Inn.
- F Aortic lumbar Inn.
- G Proper lumbar Inn.
- H Renal Inn.
- I Pancreaticoduodenal Inn.
- K Anorectal Inn.
- L Gastric trunk
- M Hepatic trunk
- N Intestinal trunk
- O Cisterna chyli
- P Thoracic duct
- Q Lumbar trunk
- R Visceral trunk



Bo.

Legend:

- a Cran. mesenteric a.
- b Caud. pancreaticoduoden
- c Middle colic a.
- d Ileocolic a.
- e Right colic a.
- f Colic branches
- g Cecal a.
- h Antimesenteric ileal br.
- h' Mesenteric ileal br.
- i Collateral br.
- j Jejunal aa.
- k Ileal a.
- l Caud. mesenteric a.
- m Left colic a.
- n Cran. rectal a.
- o Sigmoidal aa.

Legend:

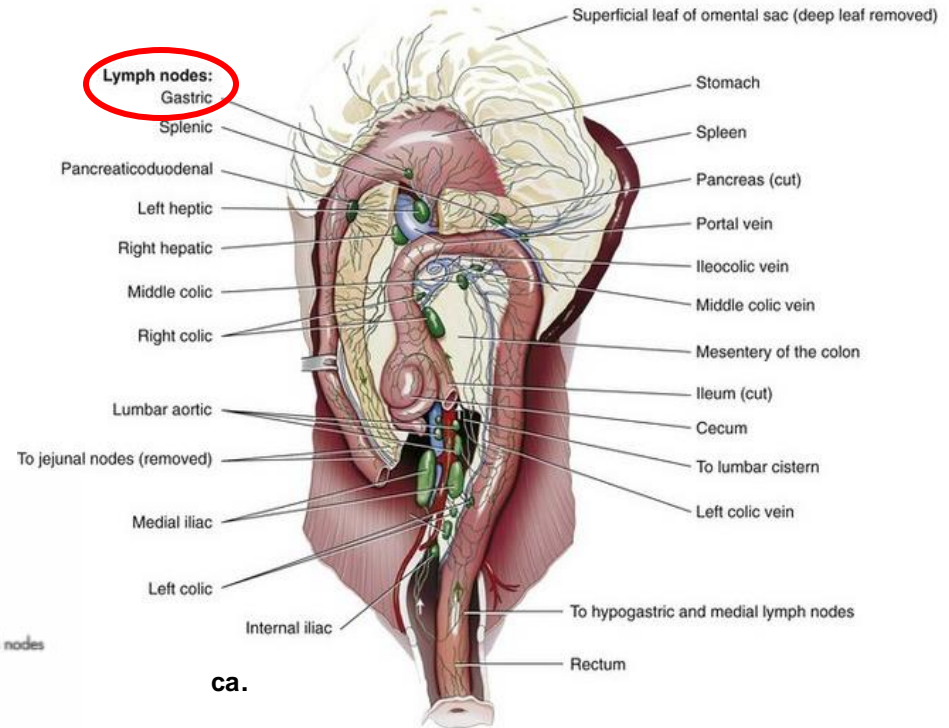
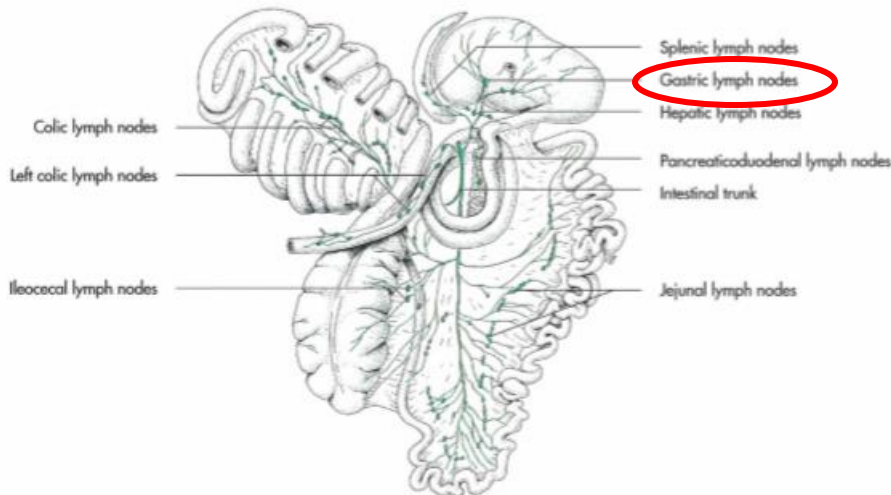
- A Cran. mesenteric Inn.
- B Caud. mesenteric Inn.
- C Colic Inn.
- D Cecal Inn.
- E Jejunal Inn.

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIDE

2. Lymphocentrum coeliacum:

b. Nll. gastrici (Magenlymphknoten):

- **Ausnahme Wdk.**
- an den Ästen der A. gastrica sin.
- an der kleinen Magenkrümmung
- beim Schw., Pfd., bei der Fleischschau untersucht



ca.

<https://veteriankey.com/colon/>

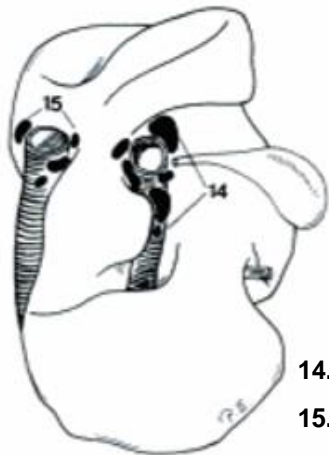
Fig. 13-13. Lymph nodes and lymph vessels of the intestine of the pig, schematic [Najbert, 1982].

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

2. Lymphocentrum coeliacum:

c. NII. hepatici seu portales (Leberlymphknoten):

- an der A. hepatica
- nahe der Leberpforte
- **beim Rd.– NII. hepatici accessorii-** an der Impressio venae cavae
- **beim Schw., Pfd., Wdk. bei der Fleischbeschau untersucht**



B Lymph nodes on the visceral surface of the liver (bo)

14. NII. hepatici

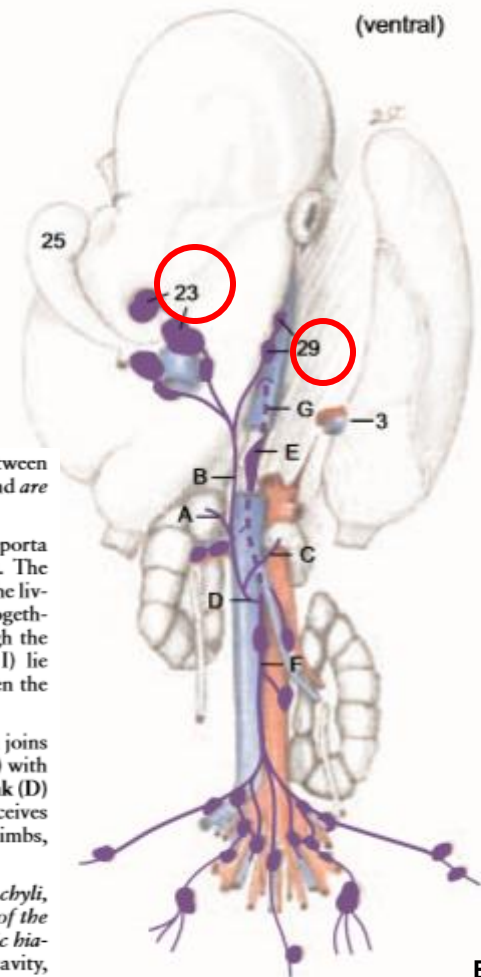
15. NII. hepatici accessorii

The 1–7 splenic lnn. (p. 73) lie dorsocranial to the spleen between the atrium of the rumen and the left crus of the diaphragm, and *are regularly examined in meat inspection*.

The 6–15 hepatic (portal) lnn. (23) are grouped around the porta of the liver and *are regularly examined in meat inspection*. The accessory hepatic lnn. (29) are found on the dorsal border of the liver near the caudal vena cava. The outflow of lymph occurs, together with that of the dorsal and ventral abomasal lnn., through the hepatic trunk. The pancreaticoduodenal lnn. (see p. 76, I) lie between the pancreas and descending duodenum and between the pancreas and transverse colon.

The lymph drainage is through the intestinal trunk (A) which joins the hepatic trunk (B), and after receiving the gastric trunk (C) with lymph from the stomach and spleen, becomes the visceral trunk (D) and enters the cisterna chyli (E). The valveless cisterna chyli receives the lumbar trunk (F), which drains the lymph from the pelvic limbs, genital organs, and the pelvis.

The thoracic duct (G), emerging cranially from the cisterna chyli, passes in the ox through a slit in the muscle of the right crus of the diaphragm into the thorax. It does not pass through the aortic hiatus as in the horse and dog. For lymph nodes of the pelvic cavity, see also pp. 82–83.



Bo.

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

2. Lymphocentrum coeliacum:

c. NII. hepatici seu portales (Leberlymphknoten):

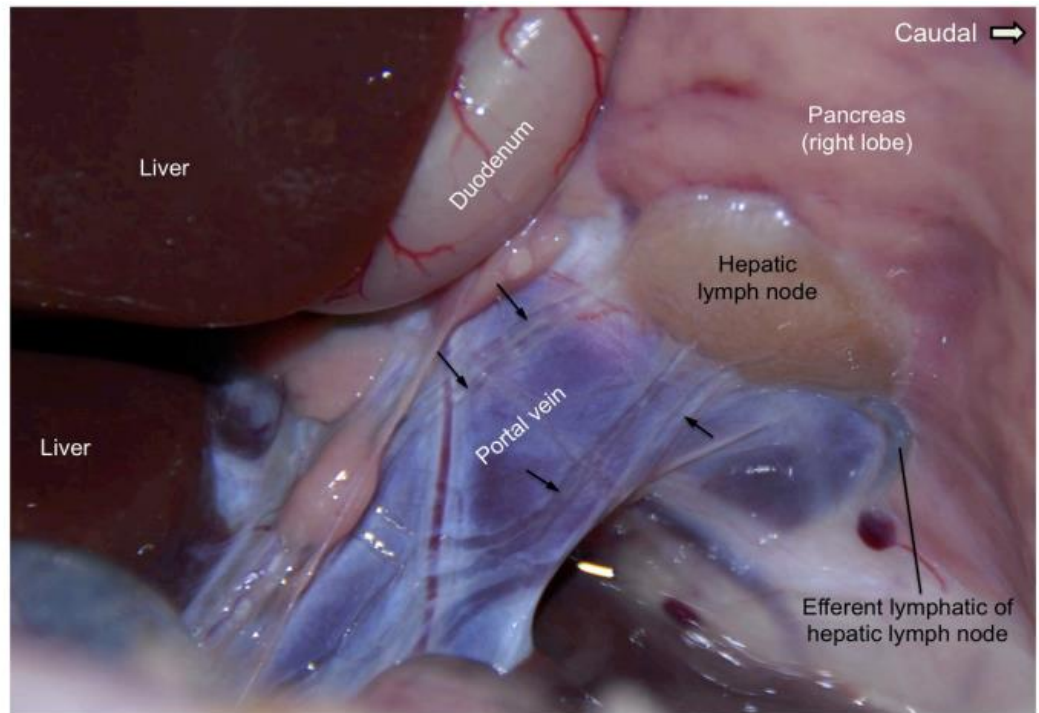


Fig 5. The dissection of one ovine hepatic lymph node and its afferent and efferent lymphatic vessels. The location of a hepatic lymph node at the junction of the portal vein and pancreas is shown in this image. Multiple afferent lymphatic vessels coming from the liver alongside the portal vein are entering this lymph node. There was an efferent lymphatic, a branch of the hepatic trunk, leaving this lymph node. This image demonstrates the usual number of afferent and efferent lymphatic vessels of a lymph node. This figure is positioned with cranial to the left and caudal to the right and shows the ventrolateral aspect of the tissues between the pancreas and the liver on the right hand side. Portal vein: the wall of the portal vein is shown lying beneath the clear afferent lymphatics.

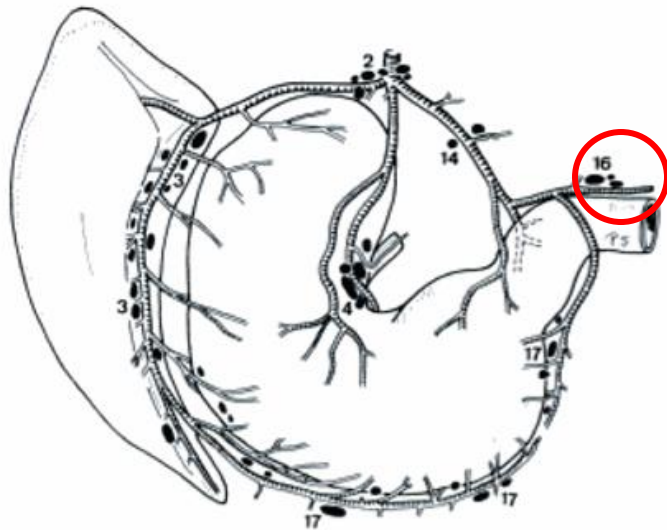
<https://doi.org/10.1371/journal.pone.0209414.g005>

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIDE

2. Lymphocentrum coeliacum:

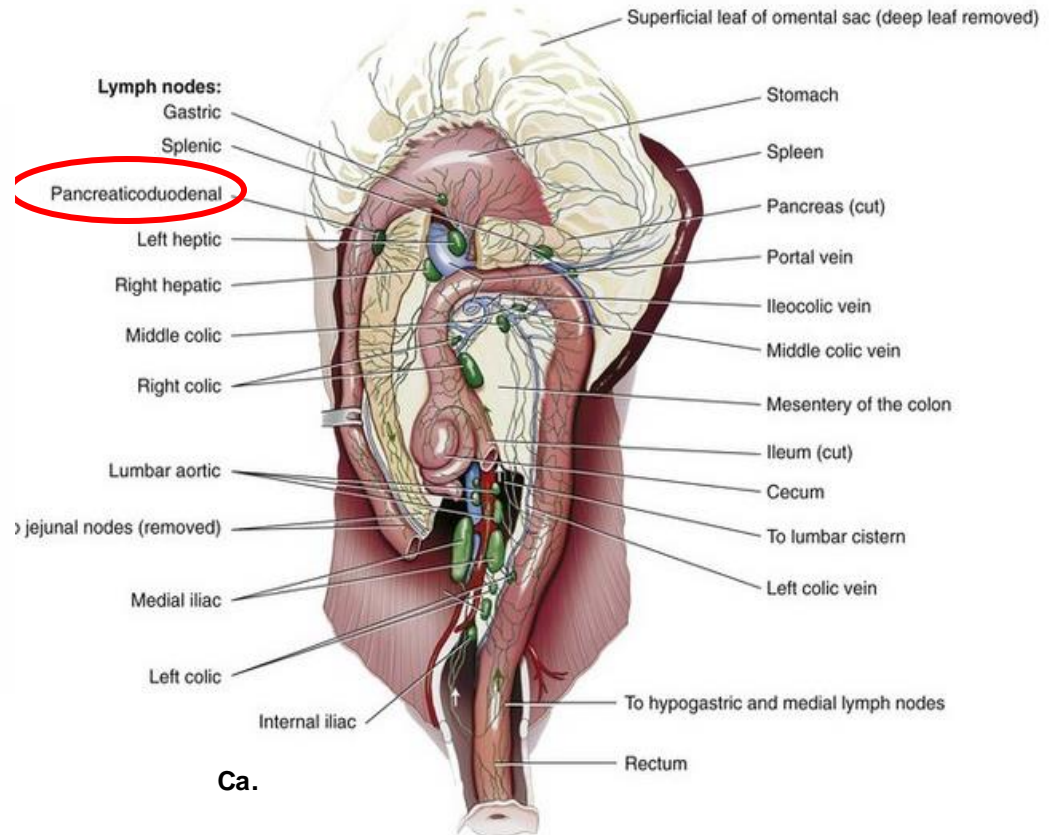
d. NII. pancreaticoduodenalis (Bauchspeicheldrüsenlymphknoten):

- an der A. pancreaticoduodenalis



A Lymphocentrum coeliacum, caudal aspect (cq)

16. NII. pancreaticoduodenalis



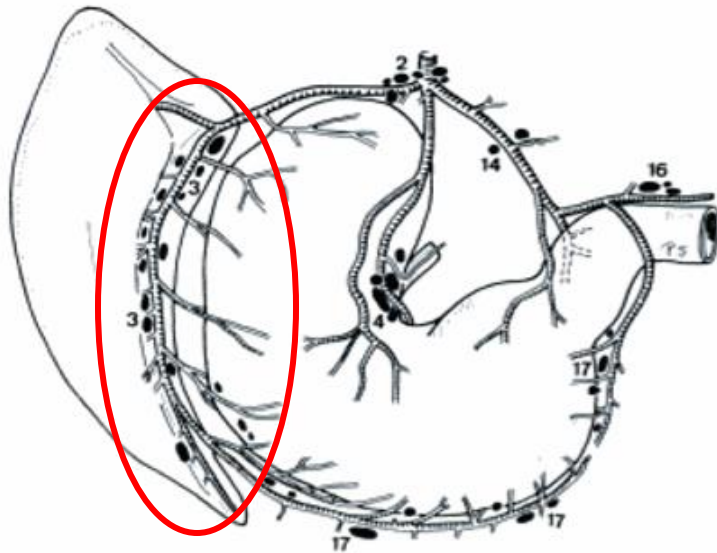
Ca.

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIDE

2. Lymphocentrum coeliacum:

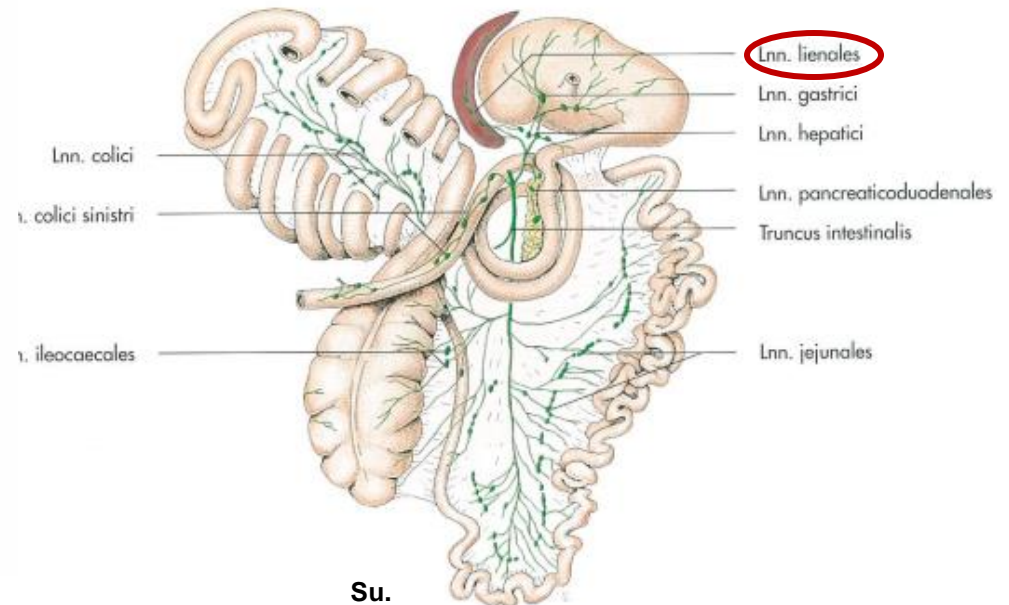
e. Nll. lienales (Milzlymphknoten):

- an der A. lienalis
- beim Wdk. bei der Fleischschau untersucht



A Lymphocentrum celiacum, caudal aspect (cq)

3. Nll. lienalis



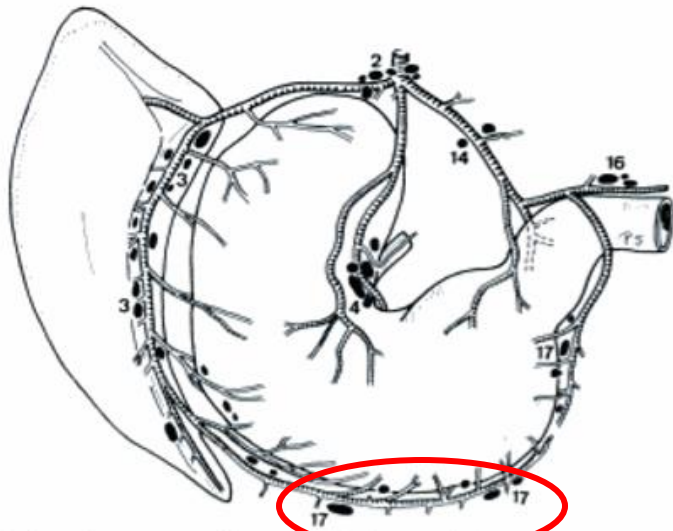
Su.

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

2. Lymphocentrum coeliacum:

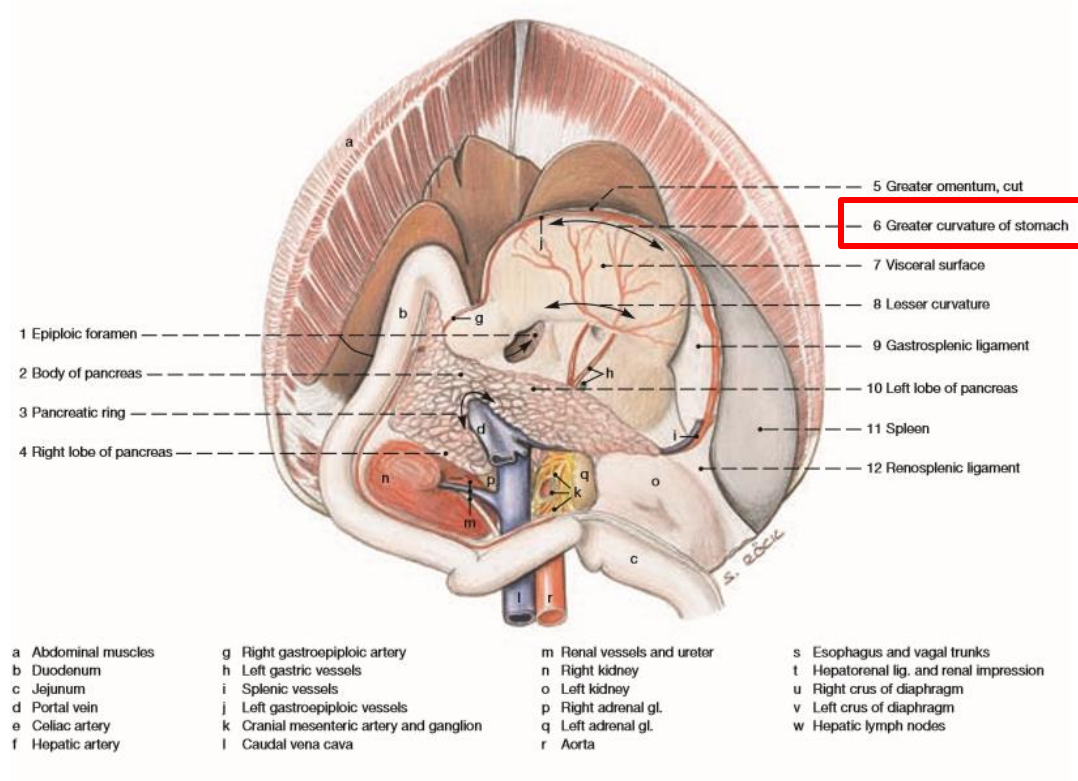
f. NII. omentales:

- beim Pfd.
- im Omentum majus



A Lymphocentrum coeliacum, caudal aspect (cq)

17. NII. omentales

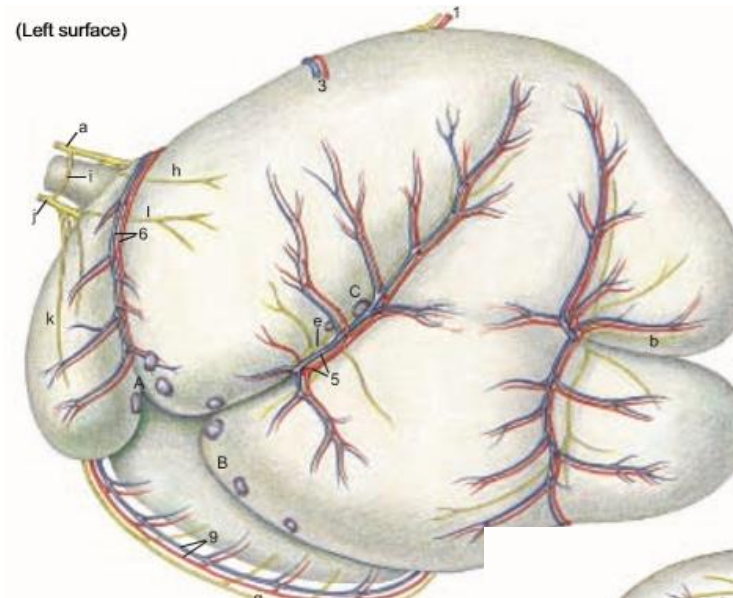


LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIDE

2. Lymphocentrum coeliacum:

BEIM WDK. unterscheidet man:

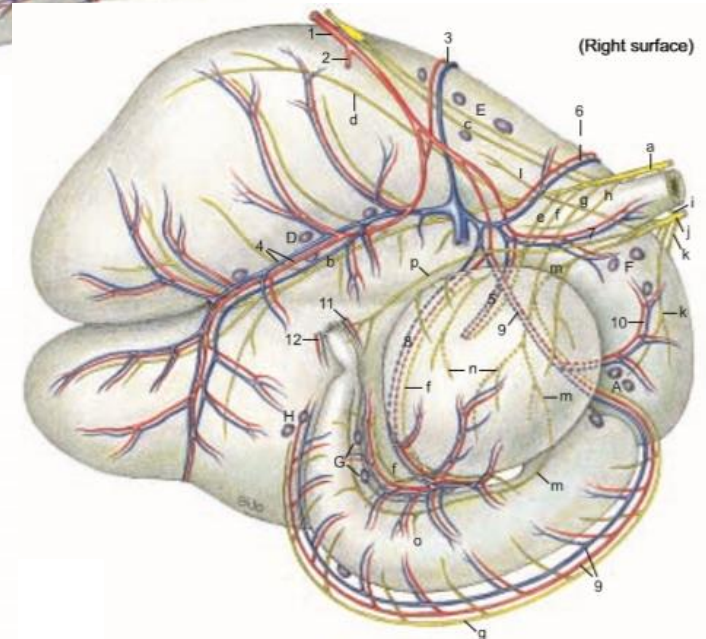
- a. NII. runinales dextri (Rd.)
- b. NIII. ruminales sinistri (Rd.)
- c. NII. ruminales craniales (Rd, Schf.)
- d. NII. reticulares (Rd, Schf.)
- e. NII. ruminoabomasiales (Rd, Schf.)
- f. NII. reticuloabomasiales
- g. NII. abomasiales dorsales
- h. NII. abomasiales ventrales



- 1 Celiac a.
- 2 Hepatic a.
- 3 Splenic a. and v.
- 4 Right ruminal a. and v.
- 5 Left ruminal a.
- 6 Reticular a. and v.
- 7 Caud. esophageal brr.
- 8 Left gastric a. and v.
- 9 Left gastroepiploic a. and v.
- 10 Accessory reticular a. and v.
- 11 Right gastric a. and v.
- 12 Right gastroepiploic a. and v.

- A Reticuloabomasal Inn.
- B Ruminoabomasal Inn.
- C Left ruminal Inn.
- D Right ruminal Inn.
- E Splenic (or atrial) Inn.
- F Reticular Inn.
- G Dorsal abomasal Inn.
- H Ventral abomasal Inn.

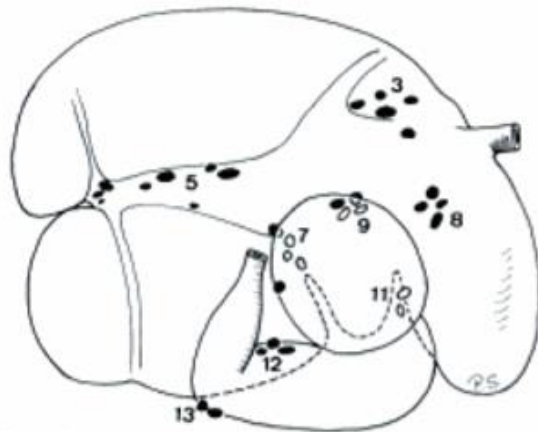
- a Dorsal vagal trunk
- b Right ruminal br.
- c Brr. to celiac plexus
- d Dorsal ruminal brr.
- e Left ruminal br.
- f Brr. of the dorsal vagal trunk
- g Br. to greater curvature of abomasum
- h Atrial brr.
- i Communicating br.
- j Ventral vagal trunk
- k Cran. reticular brr.
- l Atrial brr.
- m Brr. of the ventral vagal trunk
- n Omasal brr.
- o Parietal abomasal brr.
- p Long pyloric br.



LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

2. Lymphocentrum coeliacum:

BEIM WDK. unterscheidet man:



C Lymph nodes on the stomach, right aspect (bo)



D Lymph nodes on the stomach, left aspect (bo)

3 *Lymphonodi lienales*. Along A. and V. lienalis near Hilus lienis (Car, su, eq) or upon Atrium ruminis near cardia (Ru). May be absent (fe). A C

4 *Lymphonodi gastrici*. At A. gastrica sinistra near Curvatura ventriculi minor. May be absent (Car) or single (Car, su), in Ru divided into specific groups. A

5 *Lymphonodi ruminales dextri*. In Sulcus longitudinalis dexter of rumen. May be absent or single (cap). C

6 *Lymphonodi ruminales sinistri*. In Sulcus longitudinalis sinister of rumen. May be absent. D

7 *Lymphonodi ruminales craniales*. Deep in Sulcus cranialis of the rumen. Usually absent in ov, cap. C

8 *Lymphonodi reticulares*. On reticulum. May be absent. C

9 *Lymphonodi omasiales*. Along A. and V. gastrica sinistra near Curvatura omasi. C

10 *Lymphonodi ruminoabomasiales (ov, bo)*. Between the cranioventral border of rumen and the initial segment of abomasum. May be absent (ov). D

11 *Lymphonodi reticuloabomasiales*. In the angle between rumen, reticulum, omasum, and abomasum. May be absent (ov, cap). C D

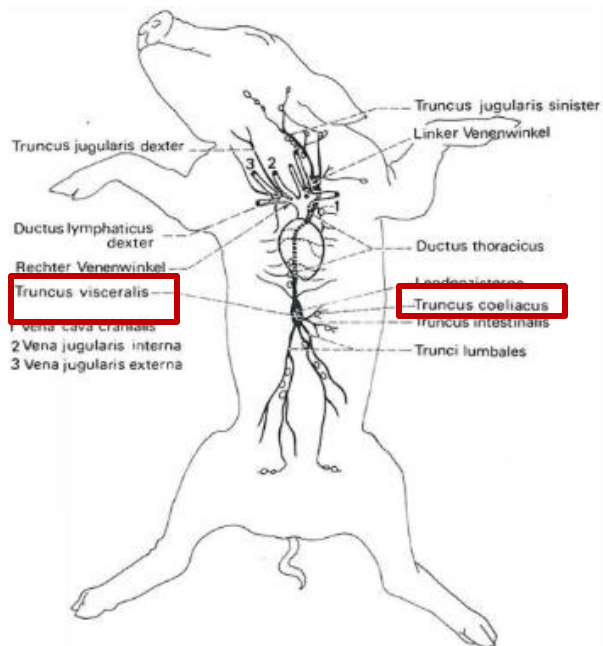
12 *Lymphonodi abomasiales dorsales*. Along Curvatura minor of abomasum. C

13 *Lymphonodi abomasiales ventrales*. Along the caudal part of Curvatura major of abomasum. May be absent.

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

LYMPHABFLUß des Lymphocentrum coeliacum:

- beim Schw. vom Truncus coeliacus – in den Truncus visceralis
- beim Pfd. vom Truncus coeliacus – in die Lendenzisterne
- beim Wdk. – zum Truncus visceralis



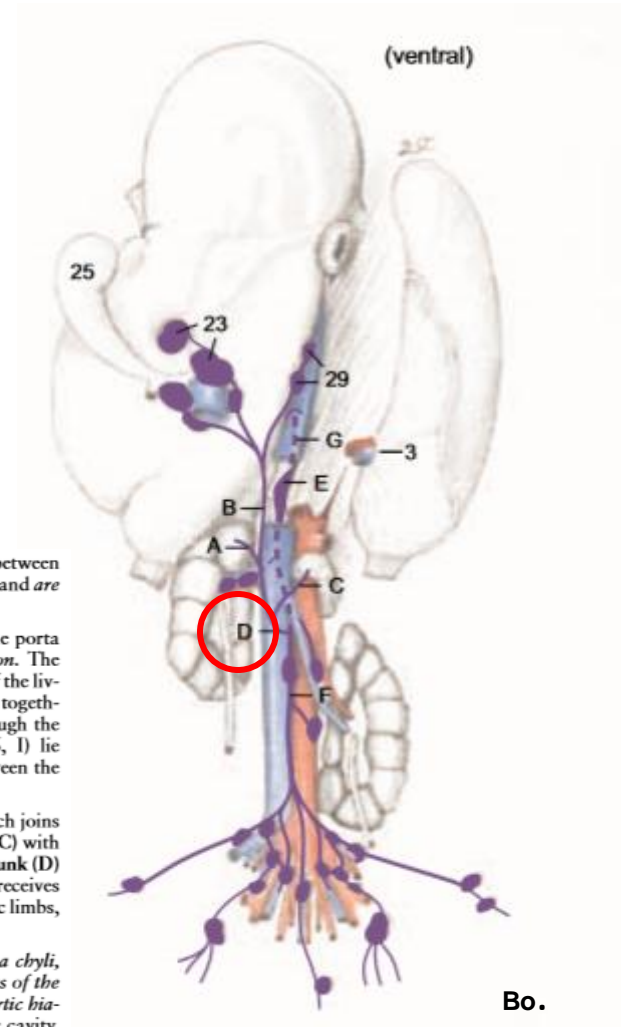
<https://www.thieme-connect.de/products/ebooks/pdf/10.1055/b-0037-148431.pdf>

The 1–7 **splenic lnn.** (p. 73) lie dorsocranial to the spleen between the atrium of the rumen and the left crus of the diaphragm, and *are regularly examined in meat inspection.*

The 6–15 **hepatic (portal) lnn.** (23) are grouped around the porta of the liver and *are regularly examined in meat inspection.* The **accessory hepatic lnn.** (29) are found on the dorsal border of the liver near the caudal vena cava. The outflow of lymph occurs, together with that of the dorsal and ventral abomasal lnn., through the hepatic trunk. The **pancreaticoduodenal lnn.** (see p. 76, I) lie between the pancreas and descending duodenum and between the pancreas and transverse colon.

The lymph drainage is through the **intestinal trunk (A)** which joins the **hepatic trunk (B)**, and after receiving the **gastric trunk (C)** with lymph from the stomach and spleen, becomes the **visceral trunk (D)** and enters the **cisterna chyli (E)**. The valveless cisterna chyli receives the **lumbar trunk (F)**, which drains the lymph from the pelvic limbs, genital organs, and the pelvis.

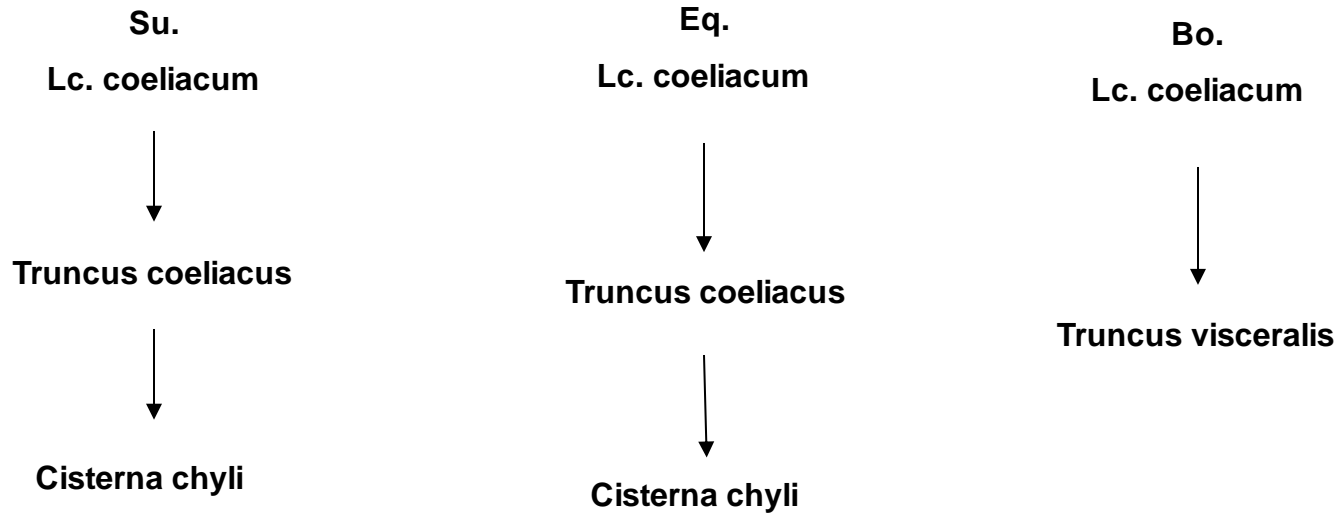
The **thoracic duct (G)**, emerging cranially from the cisterna chyli, passes in the ox through a slit in the muscle of the right crus of the diaphragm into the thorax. It does not pass through the aortic hiatus as in the horse and dog. For lymph nodes of the pelvic cavity, see also pp. 82–83.



Bo.

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

LYMPHABFLUß des Lymphocentrum coeliacum:



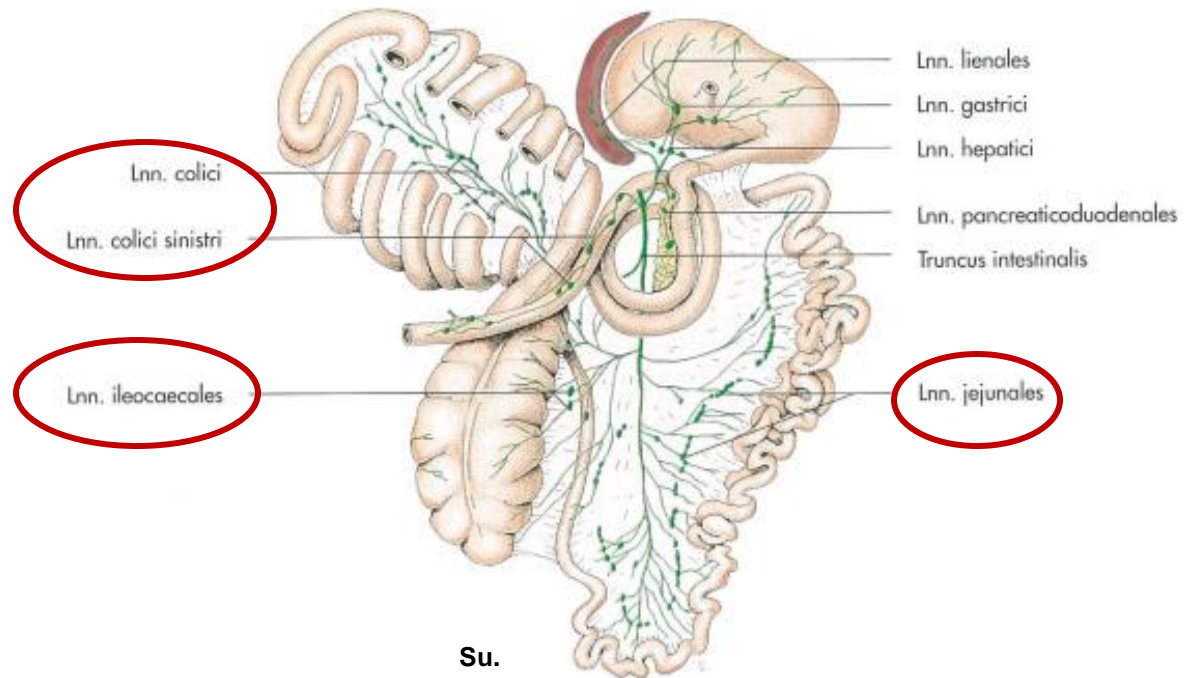
LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

2. Lymphocentrum mesentericum craniale:

- zum Einzugsgebiet gehören der gesamte Darm, ausgenommen der Proximalabschnitt des Duodenums, das Colon desc., das Rektum

UNTERSCHIEDET MAN:

- Nll. mesenterici craniales
- Nll. jejunales
- Nll. colici
- Nll. ileocolici
- Nll. caecalis



LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

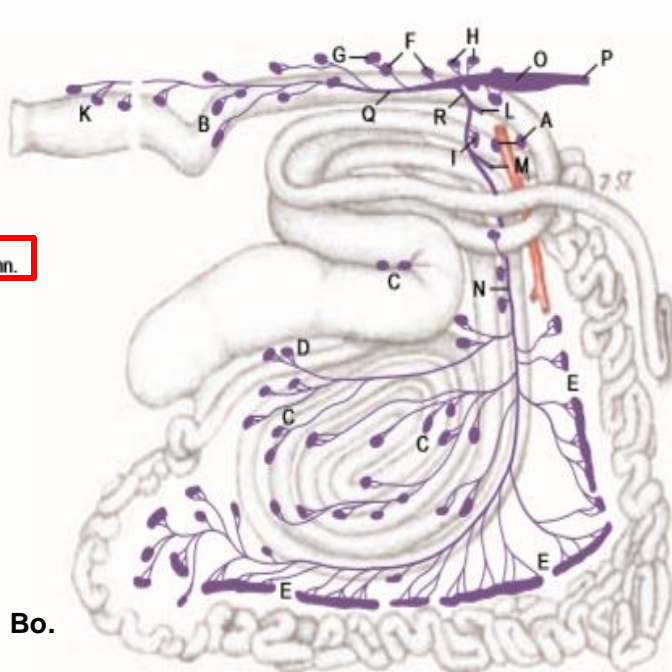
2. Lymphocentrum mesentericum craniale:

a. NII. mesenterici craniales (vordere Mesenteriallymphknoten):

- am Ursprung der A. mesenterica cranialis
- **fehlen dem Flfr.,**
- **beim Wdk. sie mit NII. coeliaci zusammengewächst**

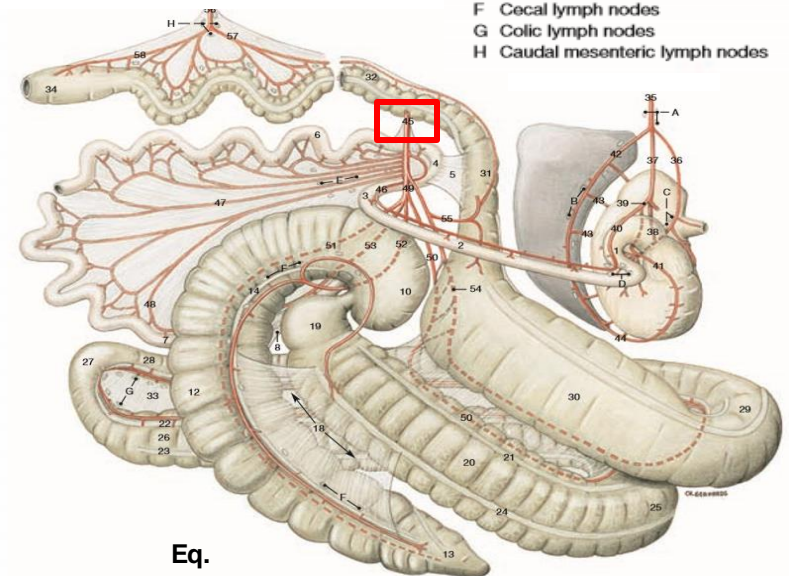
A Celiac and cran. mesenteric Inn.

- B Caud. mesenteric Inn.
 C Colic Inn.
 D Cecal Inn.
 E Jejunal Inn.
 F Aortic lumbar Inn.
 G Proper lumbar Inn.
 H Renal Inn.
 I Pancreaticoduodenal Inn.
 K Anorectal Inn.
 L Gastric trunk
 M Hepatic trunk
 N Intestinal trunk
 O Cisterna chyli
 P Thoracic duct
 Q Lumbar trunk
 R Visceral trunk



Bo.

- A Celiac lymph nodes
 B Splenic lymph nodes
 C Gastric lymph nodes
 D Pancreaticoduodenal lymph nodes
 E Jejunal lymph nodes
 F Cecal lymph nodes
 G Colic lymph nodes
 H Caudal mesenteric lymph nodes



Eq.

Part of Cecum and Right Ventral Colon, right lateral view

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIDE

2. Lymphocentrum mesentericum craniale:

b. NII. jejunales:

- spielen bei aller Hsgt. in alimentären Infektionsgeschehen eine hervorragende Rolle – die Schlachtiere (beim Schw. beide Seiten) der Fleischschau untersucht werden müssen
- im Leerdarmgekröse

19 *Lymphonodi mesenterici craniales*. At A. mesenterica cranialis. Absent in Car, instant in su, cap. Hard to differentiate from the adjacent lymph nodes (esp. Ru). E

20 *Lymphonodi jejunales*. In mesenterium near Aa. and Vv. jejunales. More or less concentrated near the root (Car, eq) or near the intestinal border (su, Ru) of mesenterium. E

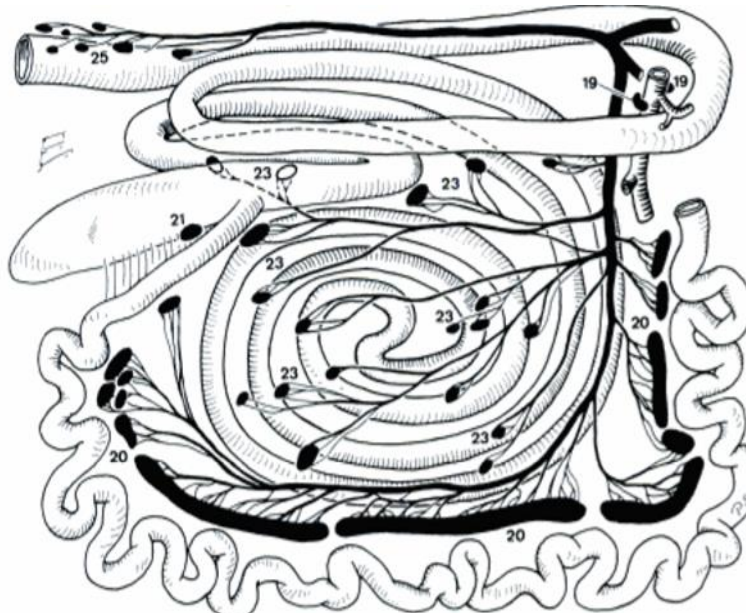
21 *Lymphonodi caecales [caecales]* (bo, eq). In Plica ileocecalis (bo, eq) and along Teniae medialis, lateralis and dorsalis of caecum (eq). May be absent (bo). Described also in fe, ov, cap. E

22 *Lymphonodi ileocolici* (su). Near Ostium ileale in mesoileum and Plica ileocecalis. Described also in cap.

23 *Lymphonodi colici*. In Mesocolon ascendens and transversum (Car), in the axis of Ansa spiralis coli (su) or along the loops (Ru) or segments (eq) of Colon ascendens. E

24 *Lymphocentrum mesentericum caudale*. At A. mesenterica caudalis and its branches, draining Colon descendens and rectum.

25 *Lymphonodi mesenterici caudales*. In Mesocolon descendens and sigmoideum and Mesorectum near A. mesenterica caudalis and its branches. E



E Lymph nodes of the intestinal tract (semischematic), right aspect (bo)



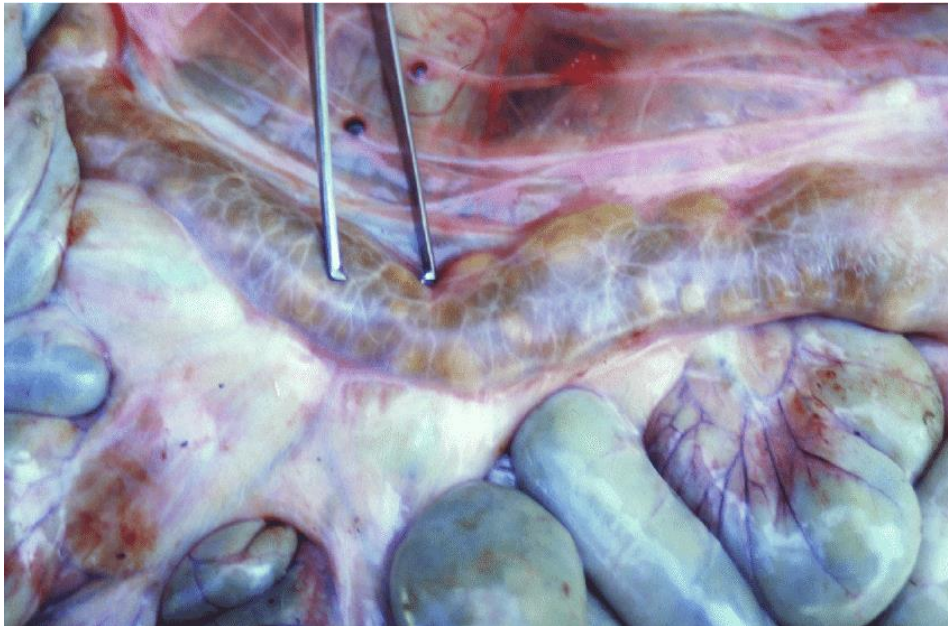
B, Part of the jejunum, showing the inclusion of jejunal lymph nodes in the mesentery.

Su.

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

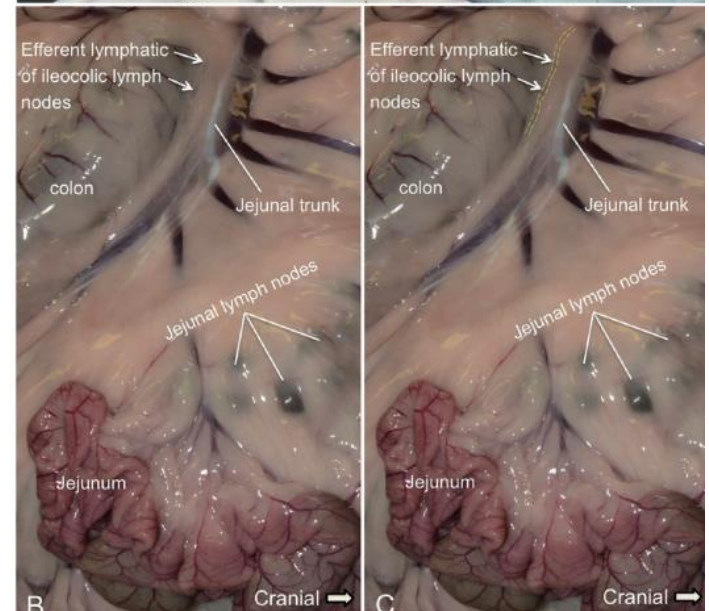
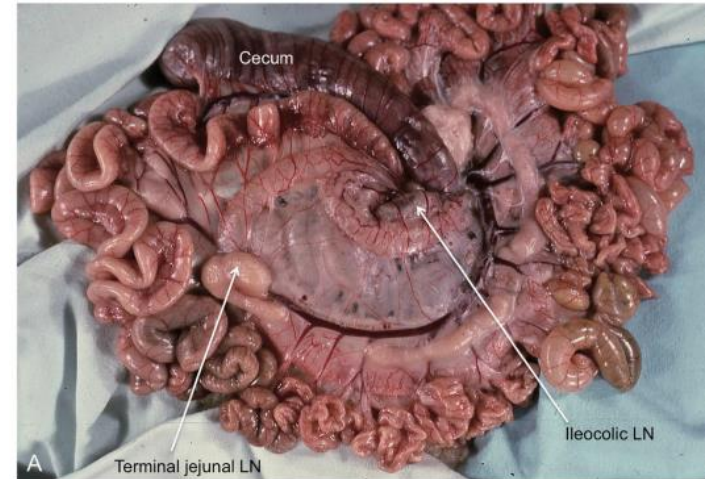
2. Lymphocentrum mesentericum craniale:

b. Nll. jejunales:



Enlarged jejunal lymph nodes with granulomas

https://www.researchgate.net/figure/Enlarged-jejunal-lymph-nodes-with-granulomas_fig1_288406939



<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0209414>

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIDE

2. Lymphocentrum mesentericum craniale:

b. NII. jejunales:

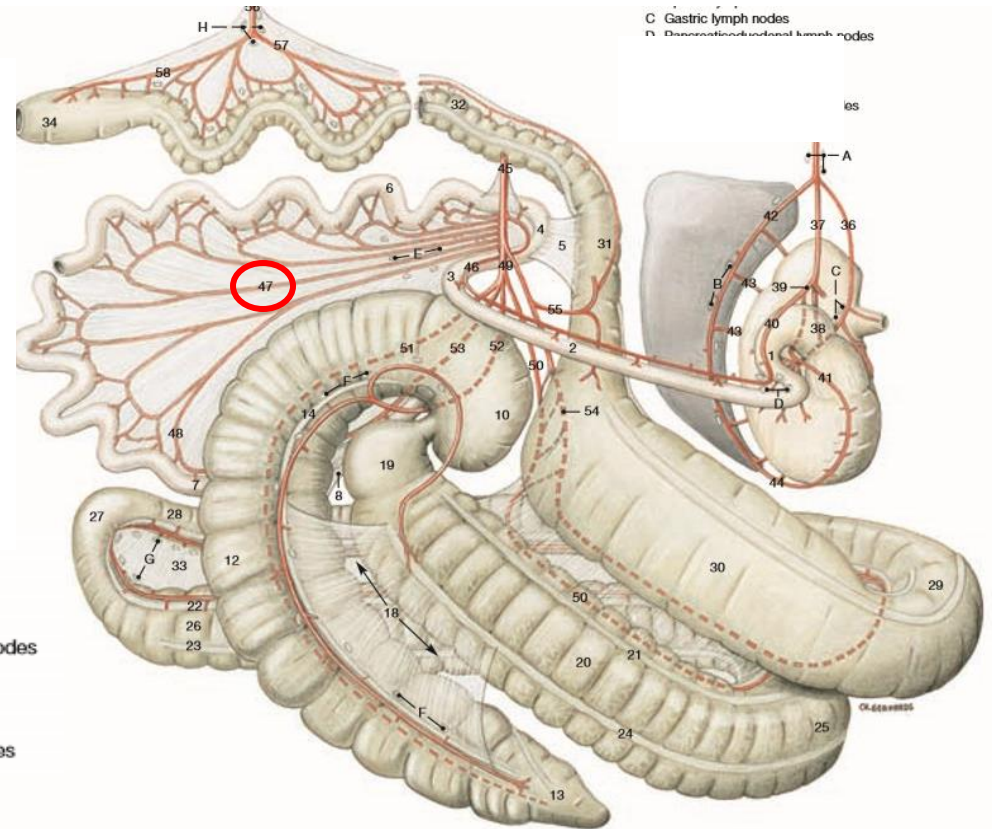
- beim Pfd. liegen am Ursprung der Aa. jejunales oder in der Mitte des Lerdarmgekröses

Duodenum
Cranial part (1)
Descending part (2)
Transverse part (3)
Ascending part (4)
Duodenocolic fold (5)
Jejunum (6)
Ileum (7)
Ileocecal fold (8)
Ileal papilla and orifice (9)
Cecum
Base (10)
Cecocolic orifice (11)
Body (12)
Apex (13)
Lateral band (14)
Dorsal band (15)
Medial band (16)
Ventral band (17)
Cecocolic fold (18)

Colon
Ascending colon
Neck of colon (19)
Right ventral colon (20)
Lateral mesocolic band (21)
Medial mesocolic band (22)
Medial free band (23)
Lateral free band (24)
Ventral diaphragmatic flexure (25)
Left ventral colon (26)
Pelvic flexure (27)
Left dorsal colon (28)
Dorsal diaphragmatic flexure (29)
Right dorsal colon (30)
Transverse colon (31)
Descending colon (32)
Mesocolon (33)
Rectum (34)
Cecum (35)
Left gastric artery (36)
Hepatic artery (37)

Right gastric artery (38)
Gastroduodenal artery (39)
Cran. pancreaticoduodenal artery (40)
Right gastroepiploic artery (41)
Splenic artery (42)
Short gastric arteries (43)
Left gastroepiploic artery (44)
Cranial mesenteric artery (45)
Caud. pancreaticoduodenal artery (46)
Jejunal arteries (47)
Ileal artery (48)
Ileocolic artery (49)
Colic branch (50)
Medial cecal artery (51)
Lateral cecal artery (52)
Mesenteric ileal branch (53)
Right colic artery (54)
Middle colic artery (55)
Caudal mesenteric artery (56)
Left colic artery (57)
Cranial rectal artery (58)

A Celiac lymph nodes
B Splenic lymph nodes
C Gastric lymph nodes
D Pancreaticoduodenal lymph nodes
E Jejunal lymph nodes
F Cecal lymph nodes
G Colic lymph nodes
H Caudal mesenteric lymph nodes



Eq.

Part of Cecum and Right Ventral Colon, right lateral view

LYPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

2. Lymphocentrum mesentericum craniale:

b. NII. jejunales:

beim Flfr.

- sind in der Mitte der Gekröseplatte drüsenartig zusammengelagert
- weshalb von Aselli beim Hund als eine Art Pankreas (PANCREAS ASELLI) gedeutet wurden

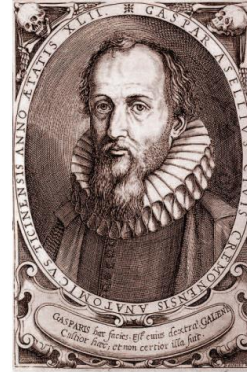


Figure 5 - Gaspare Aselli's portrait, by Cesare Bassano.

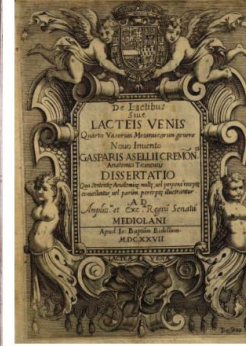


Figure 6 - Engraved title page, by Cesare Bassano. At the bottom: Anatomical illustration of the chyloferous vessels, labelled with the Latin name "Lacteae venae." From: De lactibus sive lacteis venis (1627).

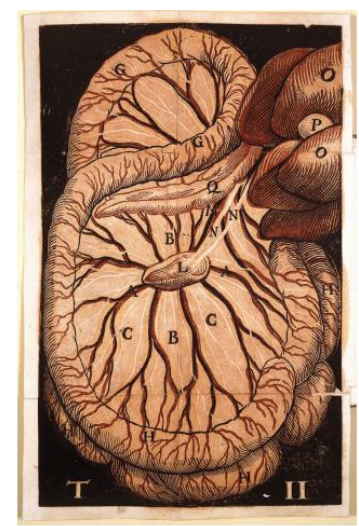


Figure 7 - One of the four chiaroscuro woodcuts. This plate, in particular, shows the relationship between the mesentery and the liver by means of the so-called "Aselli's pancreas." From: De lactibus sive lacteis venis (1627).

<http://www.vasculab.eu/jtavr/jtavr02/jtavr022/JTAVR000027-TonettiL/JTAVR000027-TonettiL.pdf>

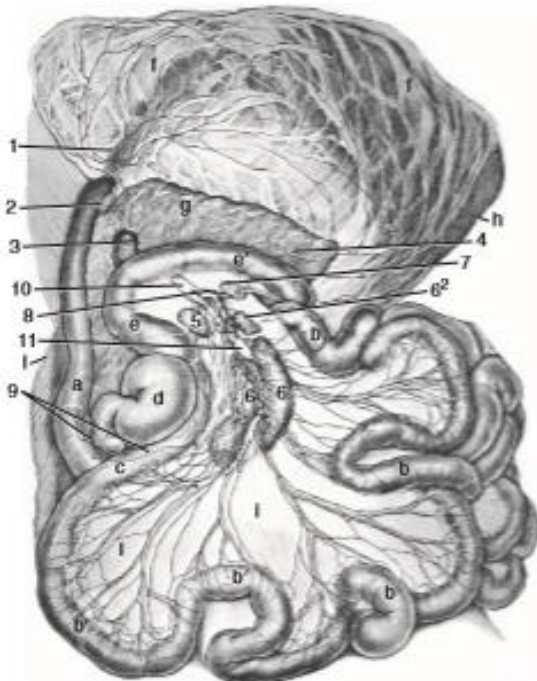
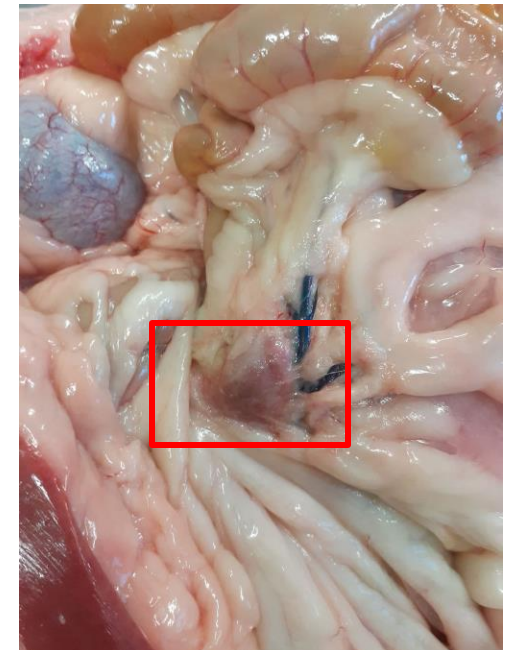


FIGURE 13-20 Lymph vessels of the small intestine and omentum of a dog lying on its back. (From Baum H: Das Lymphgefäßsystem des Hundes, Arch wiss prakt Tierheilk Bd 44:521-650, 1918.)

- | | |
|---|---|
| a. Duodenum | 1, 2. Pancreatocoduodenal lymph nodes |
| b, b'. Jejunum | 3. Right hepatic lymph node |
| c. Ileum | 4. Splenic lymph node |
| d. Cecum | 5. Right colic lymph node |
| e, e'. Colon | 6, 6'. Jejunal lymph nodes |
| f. Dorsal wall (deep leaf) of omentum through which the stomach can be seen | 7. Sigmoid colic lymph node |
| g. Pancreas | 8. Intestinal trunk |
| h. Spleen (covered in part by omentum) | 9. Lymph vessel of the duodenum that goes to the right jejunal lymph node (6) |
| i. Intestinal mesentery | 10. Cranial mesenteric artery |
| l. Cut edge of abdominal wall | 11. Jejunal lymph trunk |

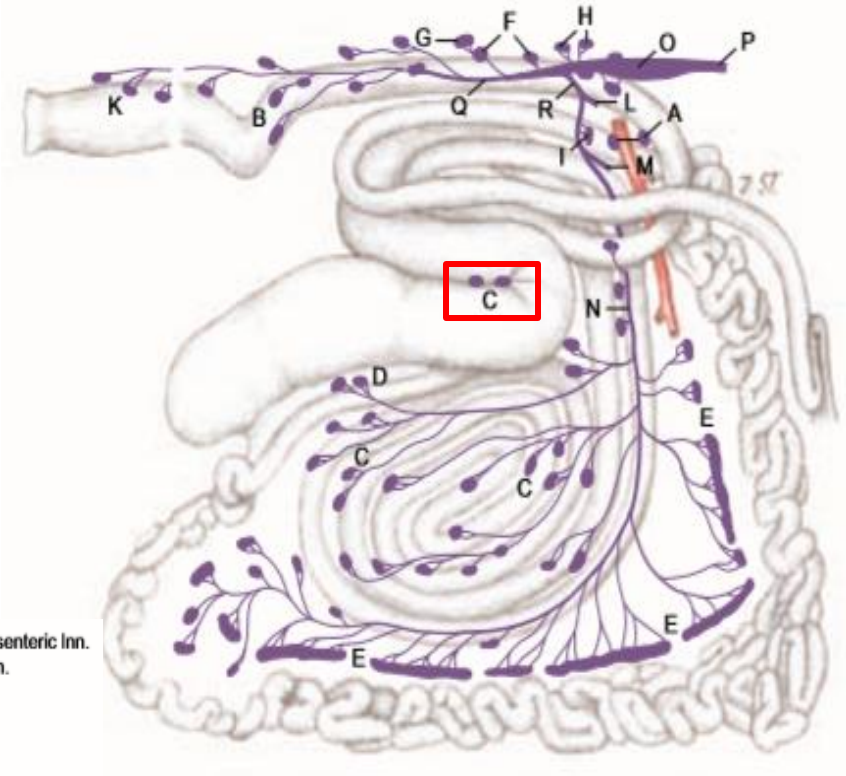
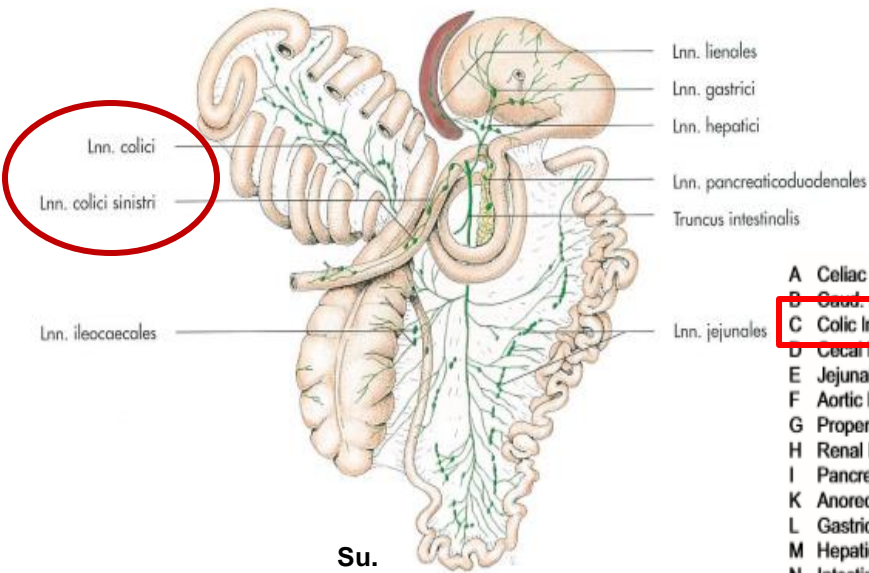


LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

2. Lymphocentrum mesentericum craniale:

c. NII. colici:

- bei allen Hsgt.
- liegen den Kolongefäßen benachbart



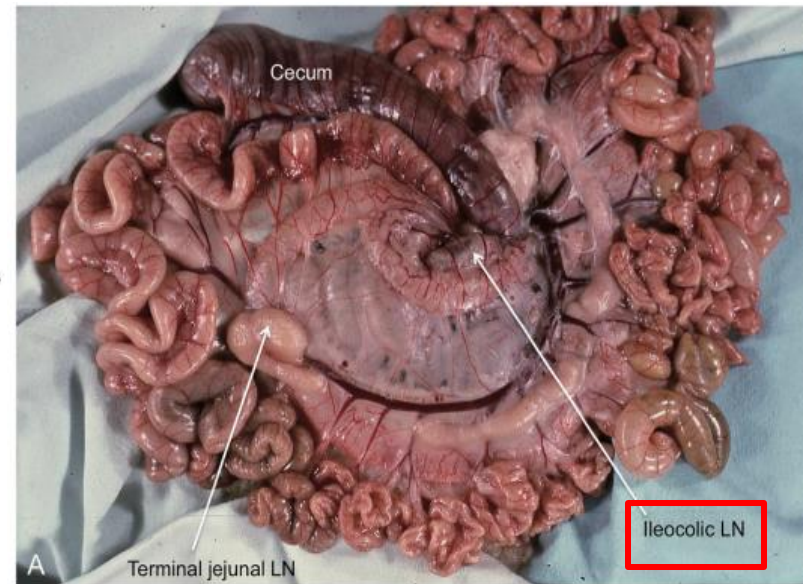
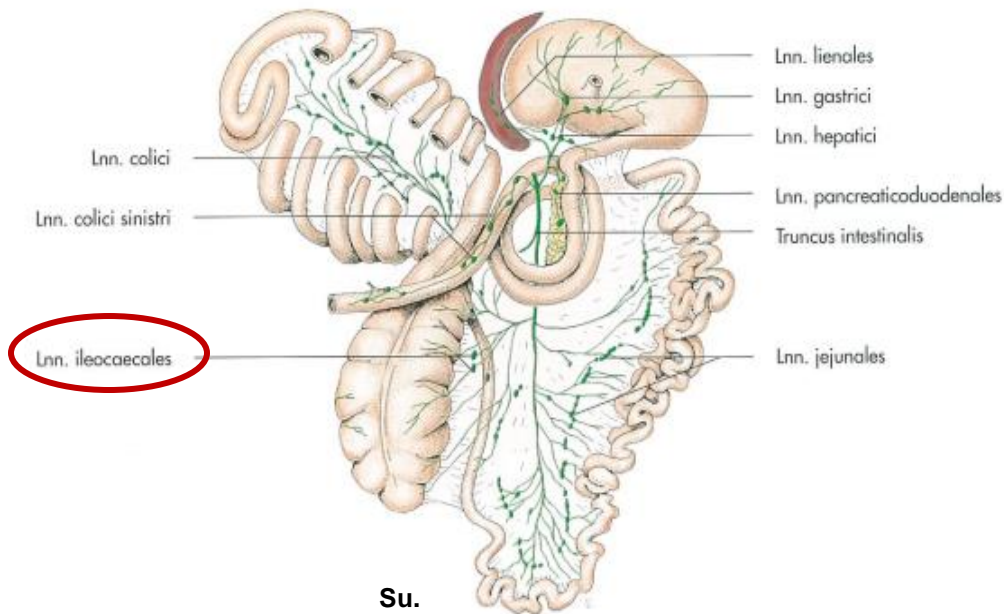
- A Celiac and cran. mesenteric lnn.
- B Caud. mesenteric lnn.
- C Colic lnn.
- D Cecal lnn.
- E Jejunal lnn.
- F Aortic lumbar lnn.
- G Proper lumbar lnn.
- H Renal lnn.
- I Pancreaticoduodenal lnn.
- K Anorectal lnn.
- L Gastric trunk
- M Hepatic trunk
- N Intestinal trunk
- O Cistema chyli
- P Thoracic duct
- Q Lumbar trunk
- R Visceral trunk

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

2. Lymphocentrum mesentericum craniale:

d. NII. ileocolici:

- bei Schw., Zg. Lymphknotengruppe in Höhe des Ostium ilei



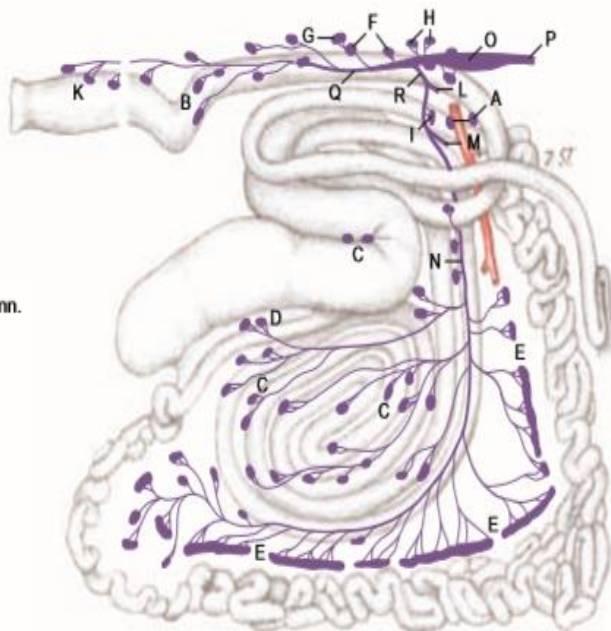
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0209414>

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

2. Lymphocentrum mesentericum craniale:

e. NII. caecalis:

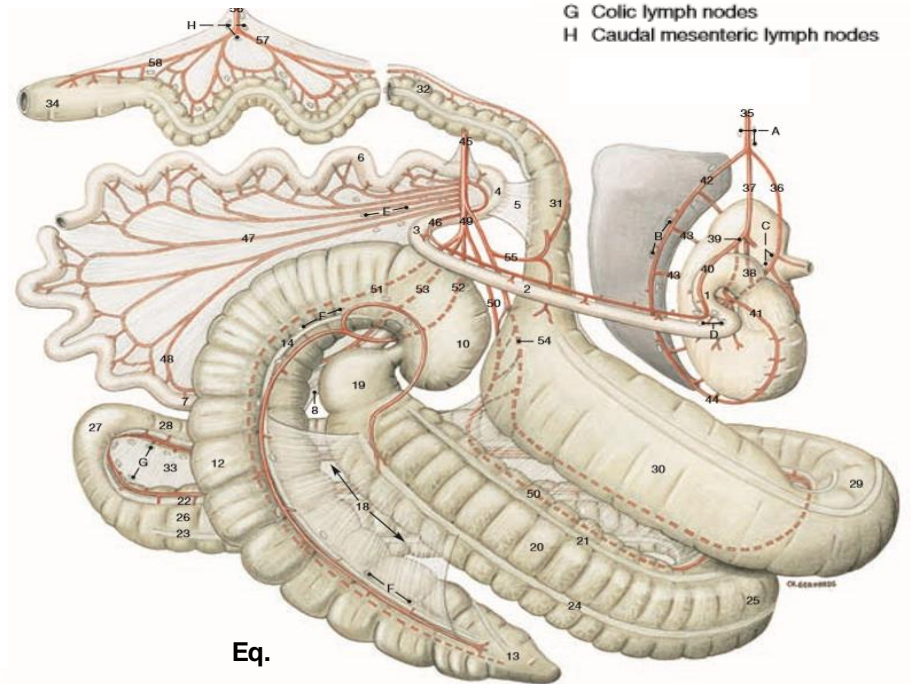
- beim Rd., Schf. Ktz. in der Plica ileocaecalis
- beim Pfd. entlang der medialen, lateralen, dorsalen Taeniae des Blinddarm



- A Celiac and cran. mesenteric Inn.
- B Caud. mesenteric Inn.
- C Colic Inn.
- D Cecal Inn.**
- E Jejunal inn.
- F Aortic lumbar Inn.
- G Proper lumbar Inn.
- H Renal Inn.
- I Pancreaticoduodenal Inn.
- K Anorectal Inn.
- L Gastric trunk
- M Hepatic trunk
- N Intestinal trunk
- O Cisterna chyli
- P Thoracic duct
- Q Lumbar trunk
- R Visceral trunk

Bo.

- A Celiac lymph nodes**
- B Splenic lymph nodes
- C Gastric lymph nodes
- D Pancreaticoduodenal lymph nodes
- E Jejunal lymph nodes
- F Cecal lymph nodes
- G Colic lymph nodes
- H Caudal mesenteric lymph nodes



Part of Cecum and Right Ventral Colon, right lateral view

LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

LYMPHABFLUß von Lc. mesentericum cran.:

- ❖ beim Flfr. – über den Truncus visceralis in die Lendenzisterne
- ❖ bei den anderen Tierarten – von Truncus jejunalis, Truncus coelicus - zum Truncus intestinalis – in die Lendenzisterne

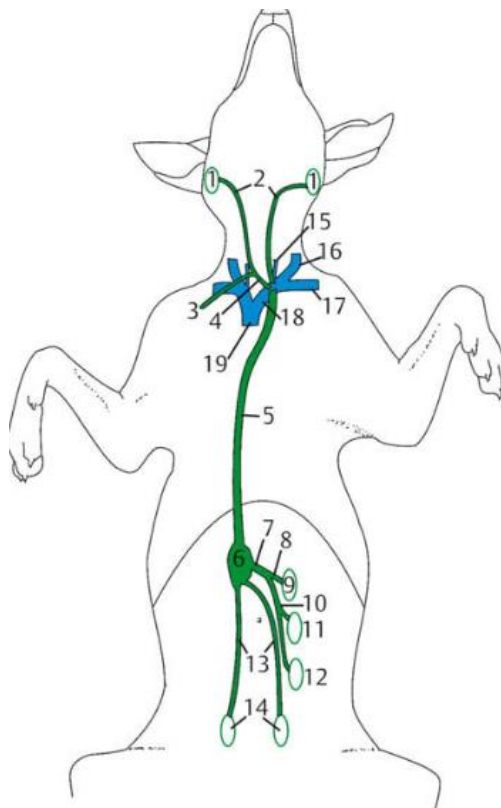


Abb. 6.47 Schema der Lymphsammelstämme beim Hund

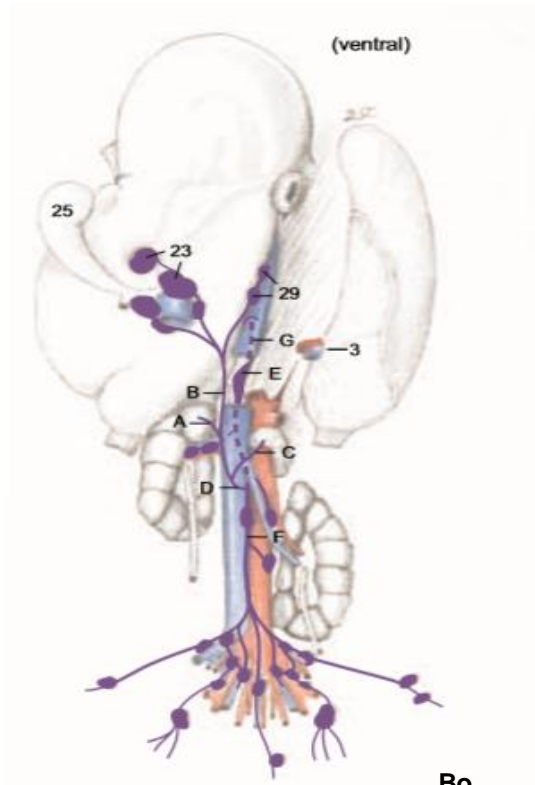
- | | |
|------------------------------------|---|
| 1 Lc. retropharyngeum | 11 Lc. mesentericum craniale |
| 2 Tr. trachealis | 12 Lc. mediastinale caudale |
| 3 rechte Achsellymphgefäße | 13 Tr. lumbalis |
| 4 Tr. lymphaticus dexter | 14 Lnn. iliaci mediales des Lc. iliosacrale |
| 5 Ductus thoracicus | 15 V. jugularis interna |
| 6 Lendenzisterne (Cisterna chyli) | 16 V. jugularis externa |
| 7 Tr. visceralis | 17 V. subclavia |
| 8 Efferenzen des Lc. celiacum | 18 V. brachiocephalica, |
| 9 Lc. celiacum | 19 V. cava cranialis |
| 10 Efferenzen der Lcc. mesenterica | |

The 1–7 splenic lnn. (p. 73) lie dorsocranial to the spleen between the atrium of the rumen and the left crus of the diaphragm, and are regularly examined in meat inspection.

The 6–15 hepatic (portal) lnn. (23) are grouped around the porta of the liver and are regularly examined in meat inspection. The accessory hepatic lnn. are found on the dorsal border of the liver near the caudal vena cava. The outflow of lymph occurs, together with that of the dorsal and ventral abomasal lnn., through the hepatic trunk. The pancreaticoduodenal lnn. (see p. 76, l) lie between the pancreas and descending duodenum and between the pancreas and transverse colon.

The lymph drainage is through the intestinal trunk (A) which joins the hepatic trunk (B), and after receiving the gastric trunk (C) with lymph from the stomach and spleen, becomes the visceral trunk (D) and enters the cisterna chyli (E). The valveless cisterna chyli receives the lumbar trunk (F), which drains the lymph from the pelvic limbs, genital organs, and the pelvis.

The thoracic duct (G), emerging cranially from the cisterna chyli, passes in the ox through a slit in the muscle of the right crus of the diaphragm into the thorax. It does not pass through the aortic hiatus as in the horse and dog. For lymph nodes of the pelvic cavity, see also pp. 82–83.



LYMPHGEFÄßSYSTEM DER DORSALEN BAUCHWAND UND DER BAUCHEINGEWEIFE

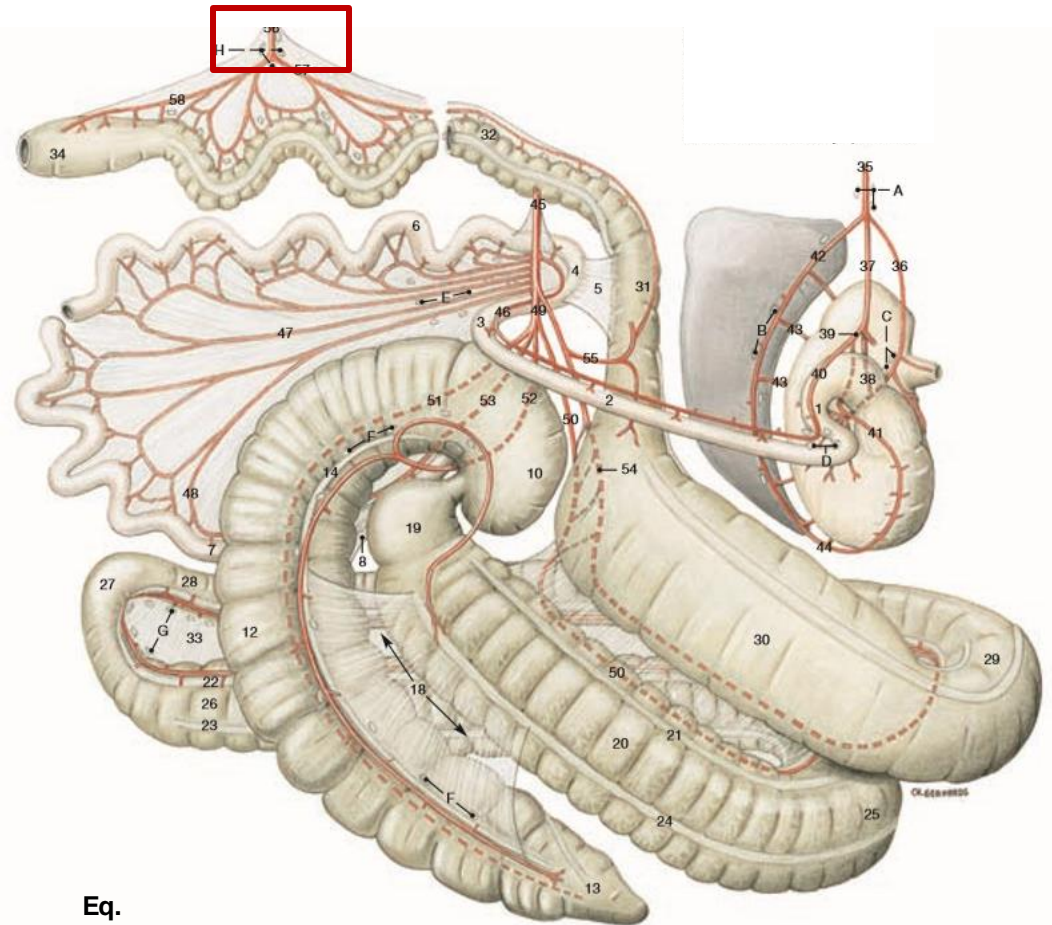
3. Lymphocentrum mesentericum caudale (hintere Mesenteriallymphknoten):

- zum Versorgungsgebiet der A. mesenterica caudalis gehörenden Darmabschnitten:

1. Colon desc.
2. Anfang des Rectum

Lymphabfluß:

- über Truncus mesentericus caudalis
in die Cisterna chyli



- A Celiac lymph nodes
- B Splenic lymph nodes
- C Gastric lymph nodes
- D Pancreaticoduodenal lymph nodes
- E Jejunal lymph nodes
- F Cecal lymph nodes
- G Colic lymph nodes
- H Caudal mesenteric lymph nodes

Eq.

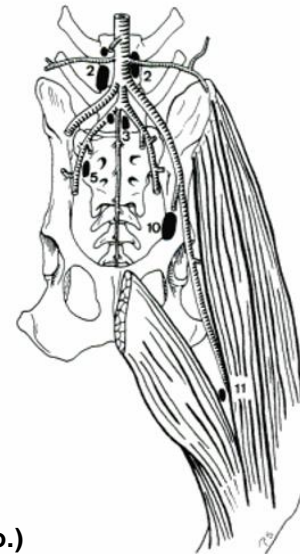
Part of Cecum and Right Ventral Colon, right lateral view

LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Im Bereich des Beckeneinganges der Beckenhöhle, Hintergliedmaße gibt es fünf Lymphozentren:

1. Lymphocentrum iliosacrale
2. Lymphocentrum inguinale profundum (seu iliofemorale)
3. Lymphocentrum inguinale superficiale (seu inguinofemorale)
4. Lymphocentrum ischiadicum
5. Lymphocentrum popliteum

2. Lymphonodi iliaci med.
3. Lymphonodi sacrales
5. Lymphonodi hypogastrici
10. Lymphonodus iliofemorale
11. Lymphonodus femoralis (Ca.)
15. Lymphonodi scrotales
17. Lymphonodi subiliaci
18. Lymphonodi coxales (bo., Eq.,)
20. Lymphonodi fossae paralumbales (Bo.)
22. Lymphonodus ischiadicum
23. Lymphonodus gluteus (Su., Bo.)
27. Lymphonodi poplitei prof.



A Iliosacral and -femoral lymphocentres, ventral aspect (ca)

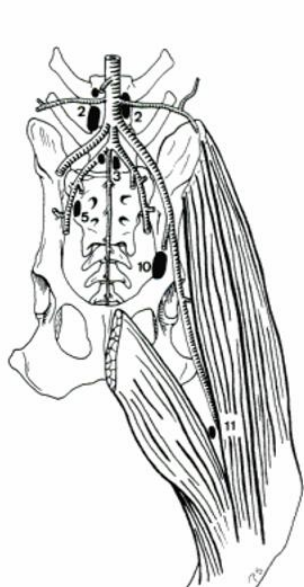


C Inguinal, ischiadic, and popliteal lymphocentres (bo masc)

LYPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum iliosacrals:

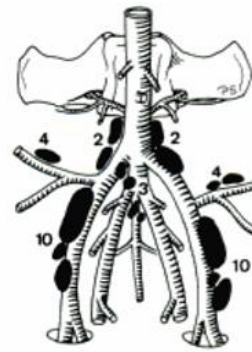
- umfaßt alle Knoten an der Aortenaufteilung, und unter der Fascia pelvina des Sakrums
- für den Beckenbereich zuständig



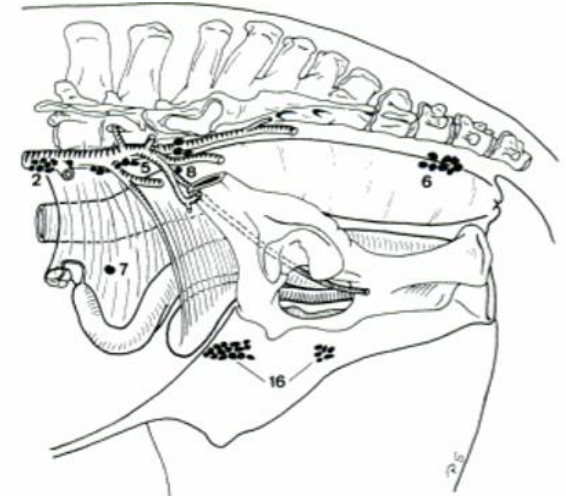
A Iliosacral and -femoral lymphocentres, ventral aspect (ca)



C Inguinal, ischiadic, and popliteal lymphocentres (bo masc)



B Lymph nodes in relation to the terminal branches of Aorta abdominalis, ventral aspect (bo)



D Iliosacral and inguinal lymphocentres (eq fem)

2. Lymphonodi iliaci med.
3. Lymphonodi sacrales
4. Lymphonodi iliaci lat
5. Lymphonodi hypogastrici
6. Lymphonodi anorectales
7. Lymphonodus uterinus (Su., Eq.)
11. Lymphonodus femoralis (Ca.)
10. Lymphonodus iliofemorale (seu inguinales profundi) (Eq.)
15. Lymphonodi scrotales
16. Lymphonodi mammarii
17. Lymphonodi subiliaci

LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

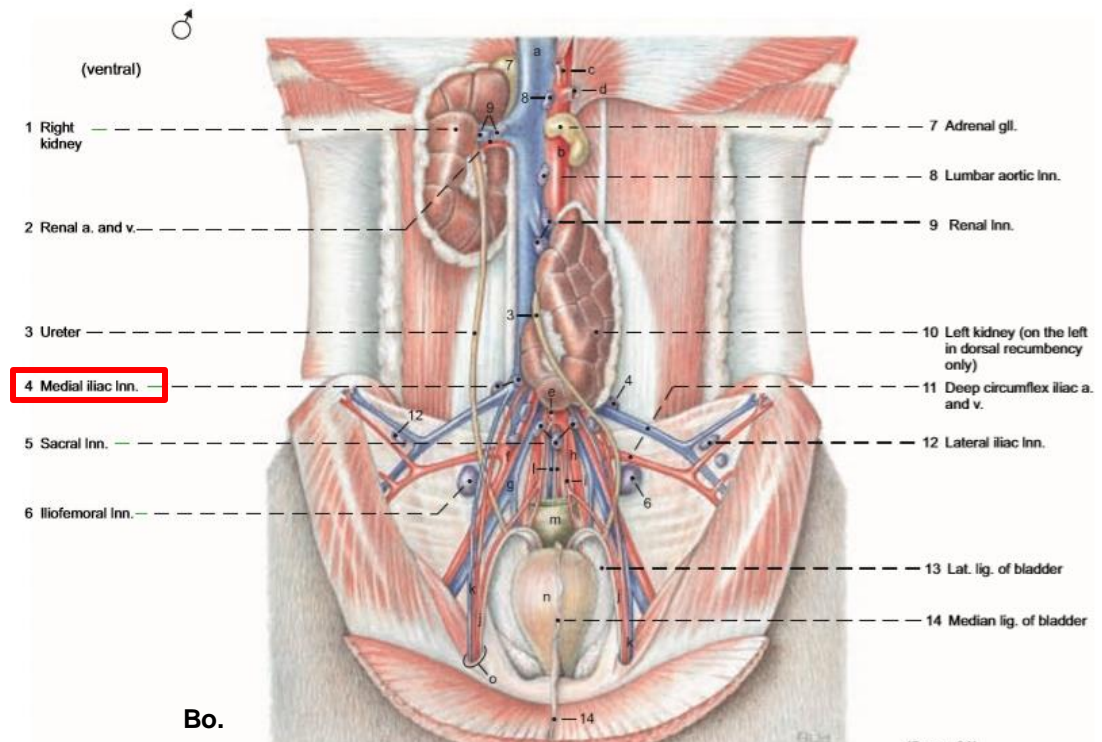
Lymphocentrum iliosacrale:

1. Nll. iliaci mediales (mittlere Darmbeinlymphknoten):

- unmittelbar an der Aortenaufteilung

- **bei allen Hsgt.**

- bei der Fleischschau bei Schw., Wdk., Pfd., sorgfältig untersucht

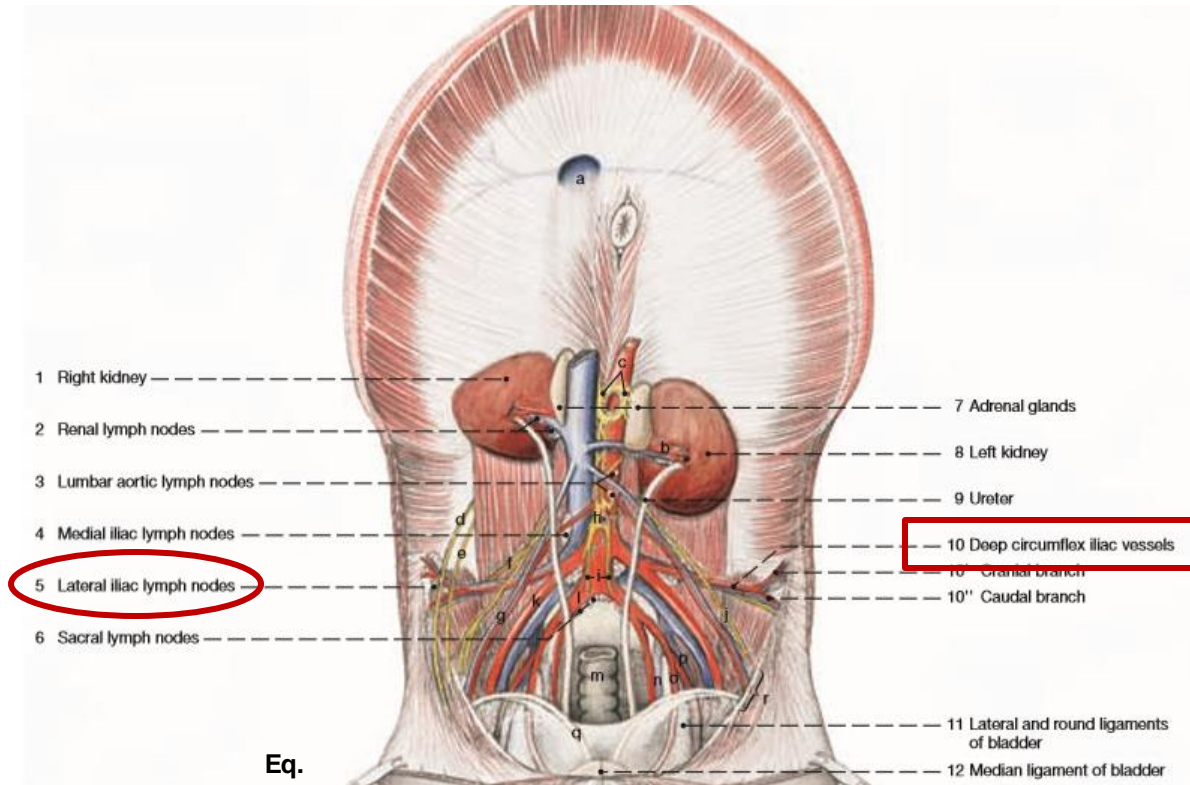


LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum iliosacrale:

2. NII. iliaci laterales (seitliche Darmbeinlymphknoten):

- an der Aufzweigung der A. circumflexa ilium profunda
- **fehlen den Flfr.**
- bei der Fleischschau bei Schw., Rd. Schf., Pfd., sorgfältig untersucht



LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum iliosacrale:

3. NII. sacrales:

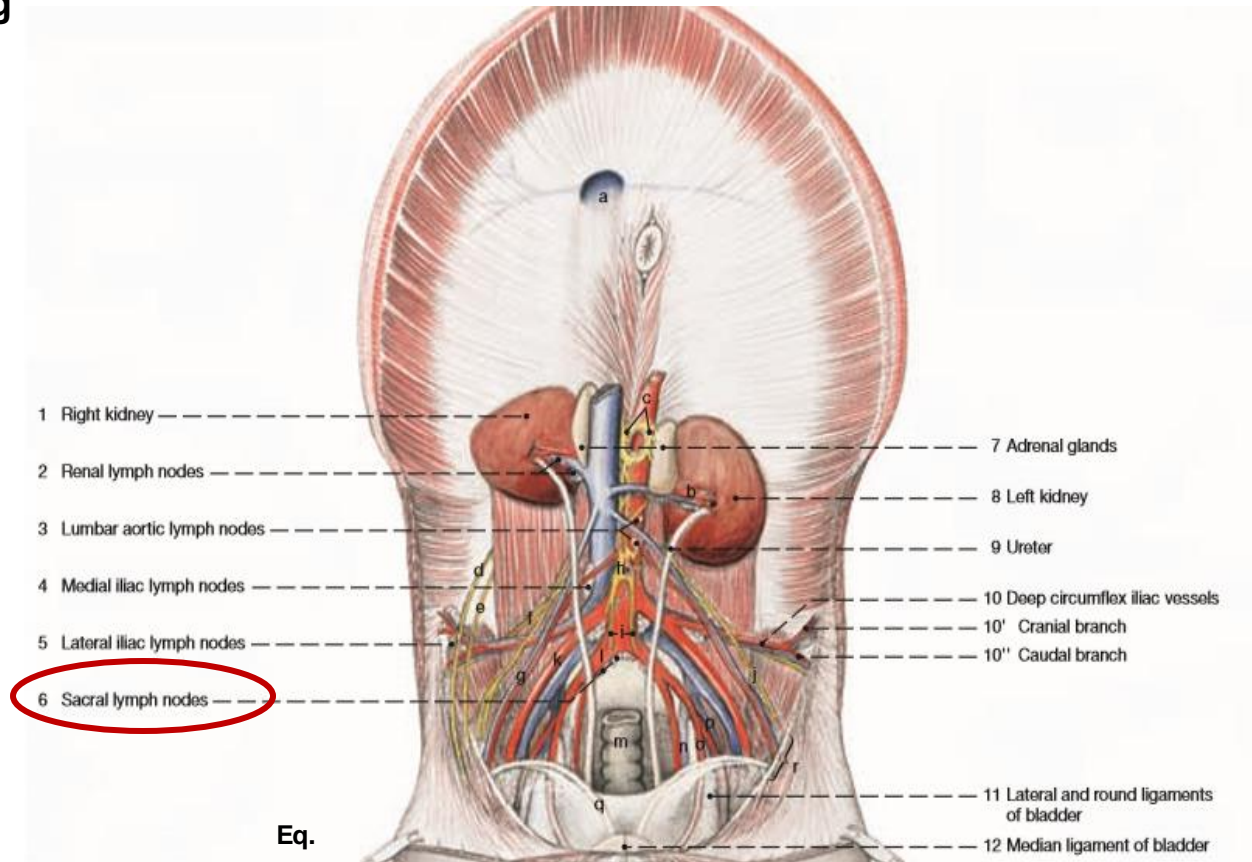
- hinter der Aortenaufteilung
- um die A. sacralis media

Einzugsgebiet:

a. die tiefen Muskulatur der Beckenwand

a. der Schwanz

b. der Analgegend



LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum iliosacrale:

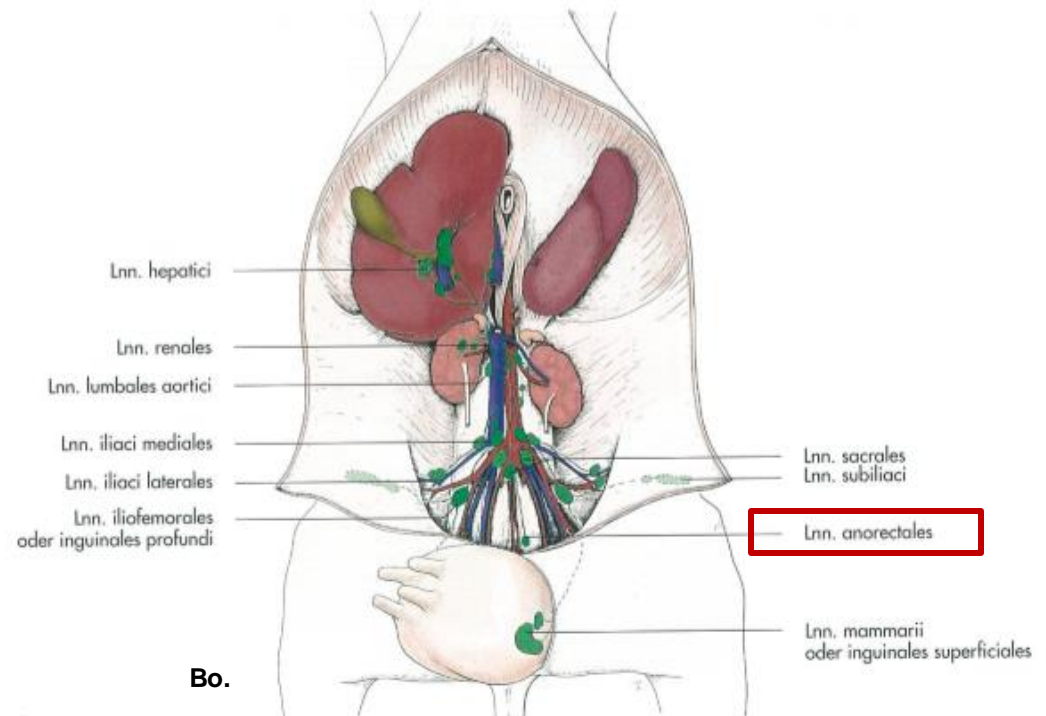
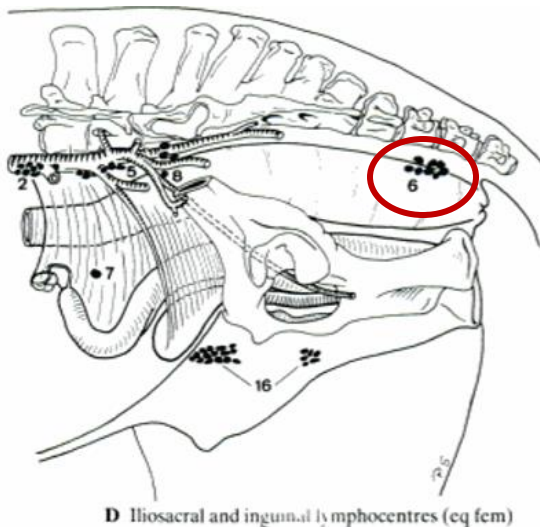
4. Nll. anorectales:

- liegen dem Rektum seitlich an

- **fehlen den Flfr.**

Einzugsgebiet:

- Rektum
- Anus
- Organe und Wand des Beckenausgangs



LYPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

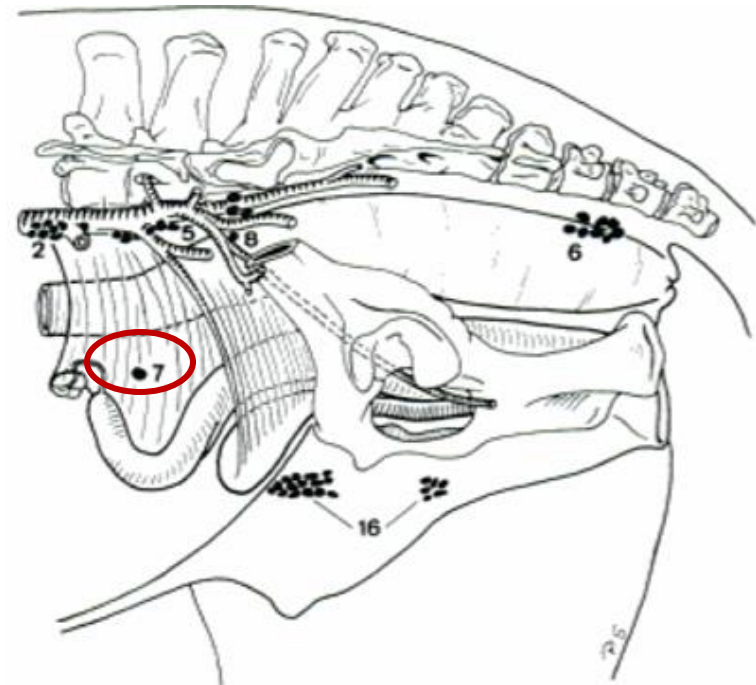
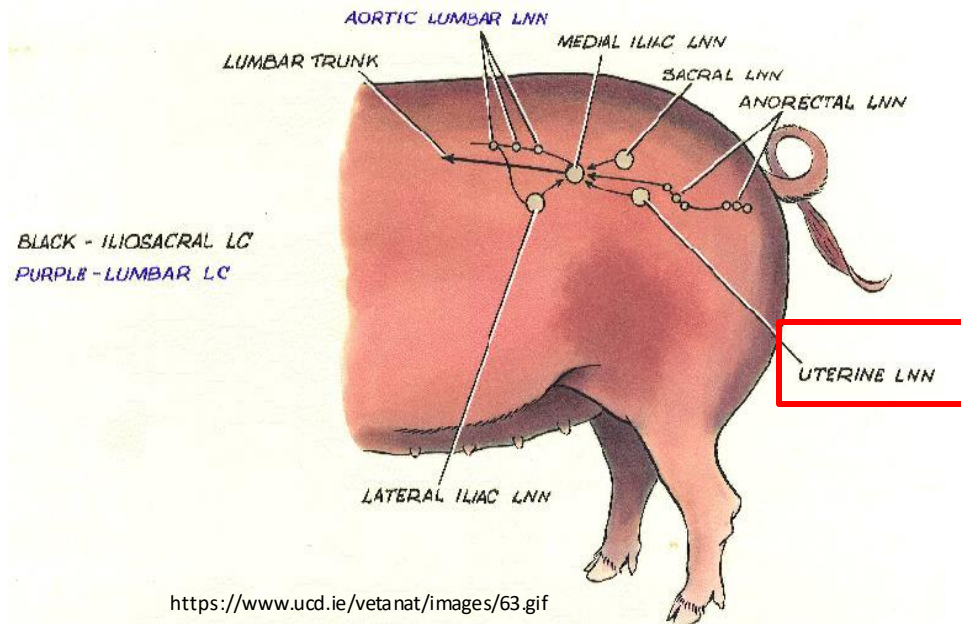
Lymphocentrum iliosacrale:

4. Nil. uterini:

- bei Pfd., Schw., inkonstans im Lig. latum uteri

Einzugsgebiet:

a. Uterus



D Iliosacral and inguinal lymphocentres (eq fem)

2. Lymphonodi iliaci med.
3. Lymphonodi sacrales
4. Lymphonodi iliaci lat
5. Lymphonodi hypogastrici
6. Lymphonodi anorectales
7. Lymphonodus uterinus (Su., Eq.)
8. Lymphonodus obturatororius (Eq.)
10. Lymphonodus iliofemorale
16. Lymphonodi mammarii

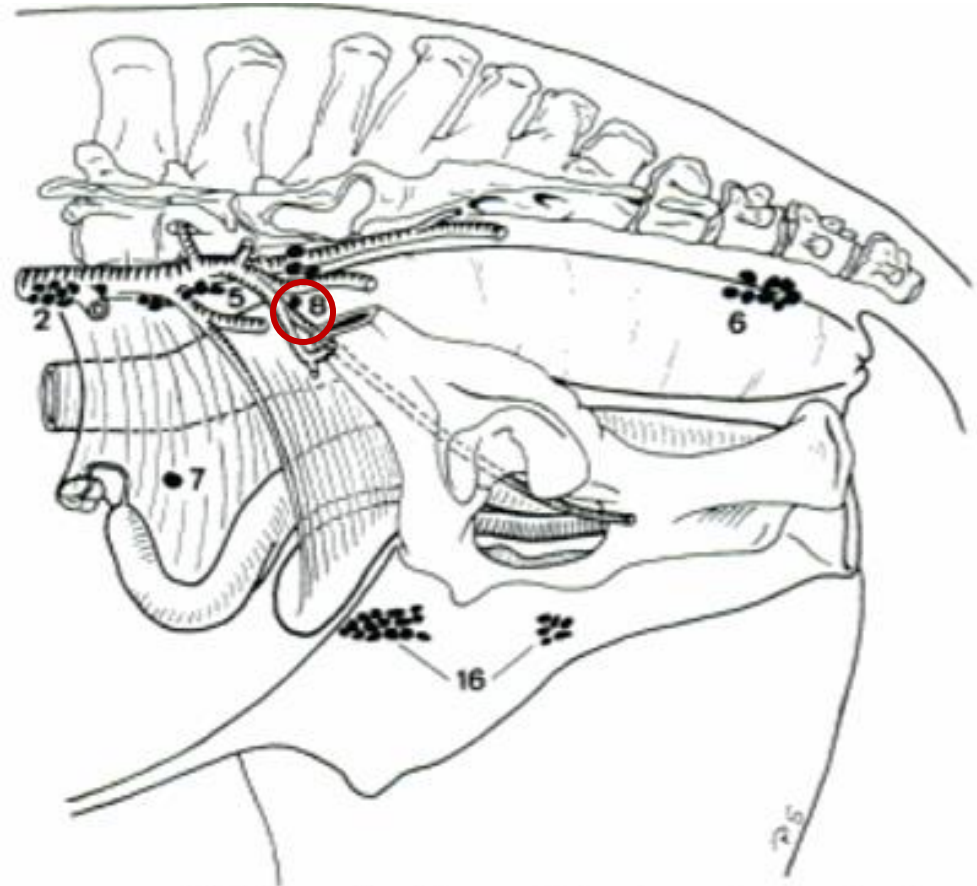
LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum iliosacrale:

5. Nl. obturatorius:

- beim Pfd.
- an der A. obturatoria

2. Lymphonodi iliaci med.
3. Lymphonodi sacrales
4. Lymphonodi iliaci lat
5. Lymphonodi hypogastrici
6. Lymphonodi anorectales
7. Lymphonodus uterinus (Su., Eq.)
8. Lymphonodus obtutarorius (Eq.)
10. Lymphonodus iliofemorale
16. Lymphonodi mammarii



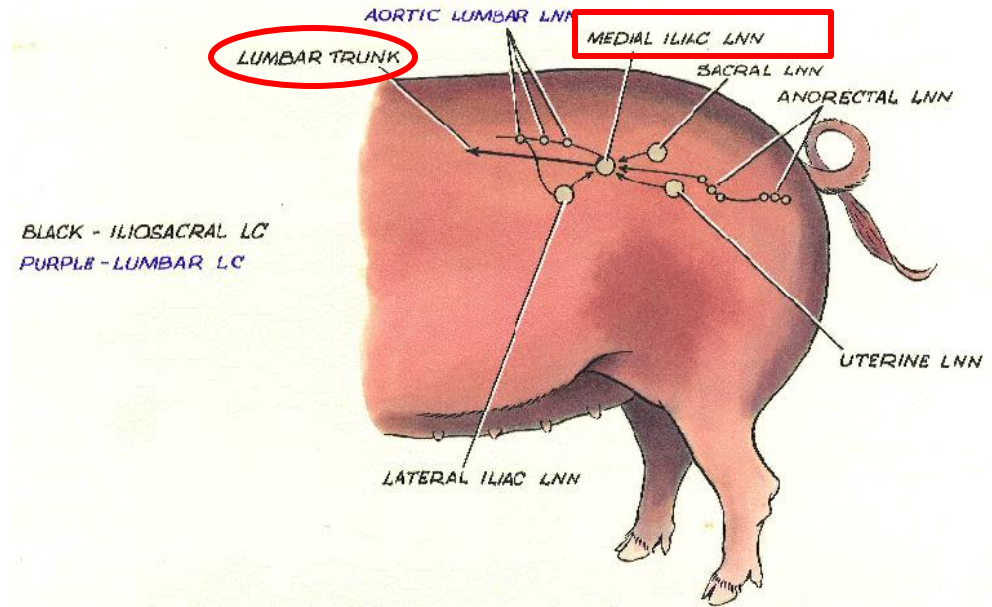
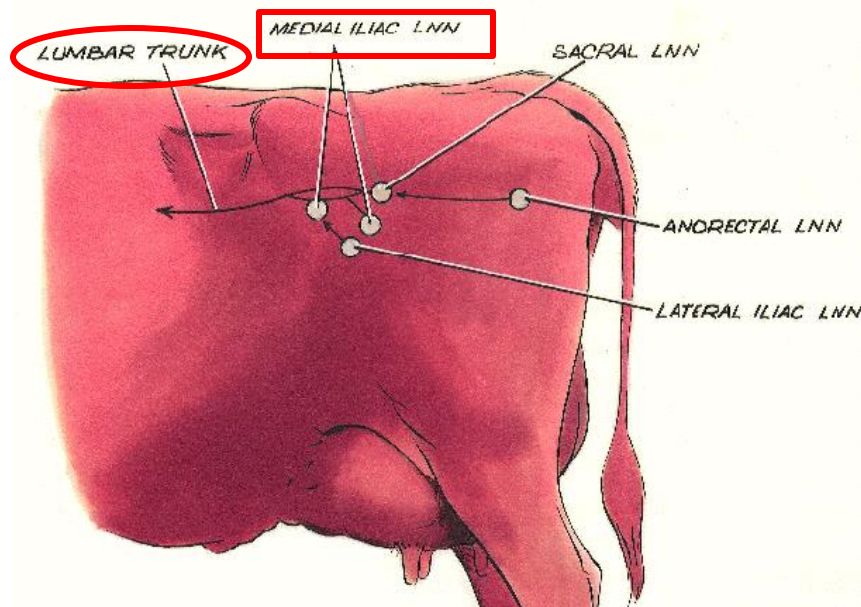
D Iliosacral and inguinal lymphocentres (eq fem)

LYPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphabfluß:

Lnn. iliaci mediales

- die Lymphe über die Trunci lumbales zur Cisterna chyli witertransportiert

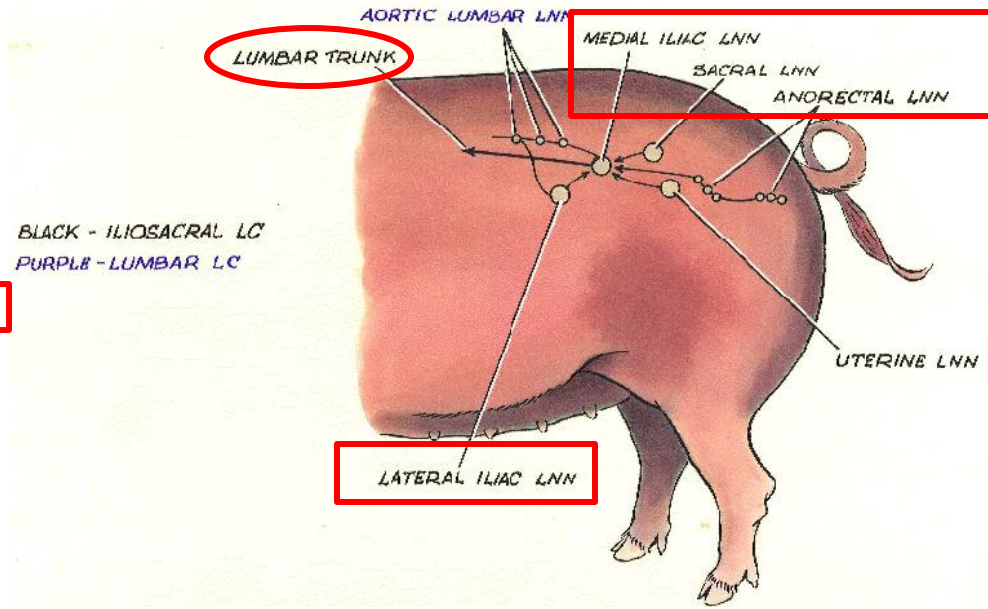
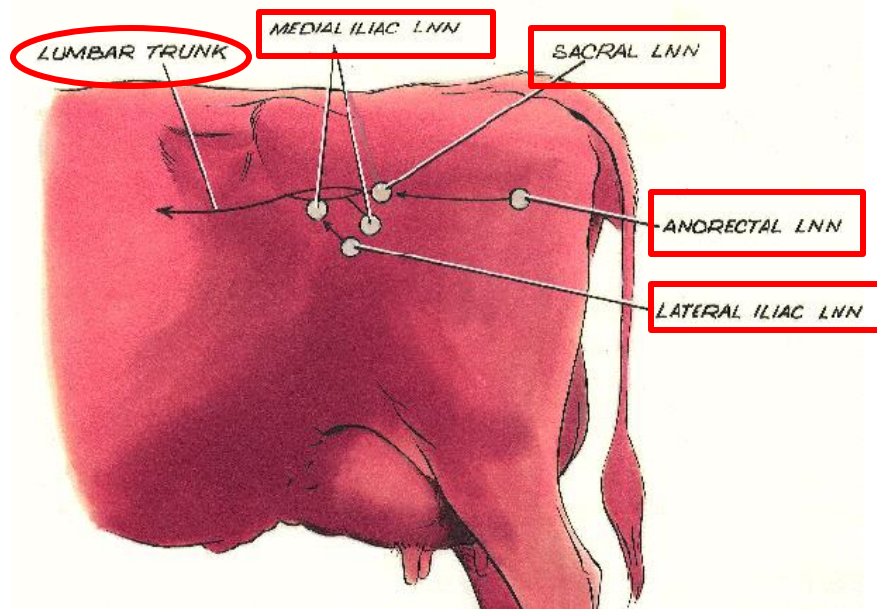


LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphabfluß:

Lnn. hypogastrici, Lnn. sacrales, Lnn. anorectales, Lnn. iliaci lat.:

- in die Lnn. iliaci mediales



LYPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum inguinale profundum seu iliofemorale:

- liegen an der A. iliaca ext. oder der A. femoralis

1. Nll. iliofemorales:

- innerhalb der Leibeshöhe

- bei Flfr., Schw., Rd., Schf.

- beim Rd. tastbar bei rektaler Untersuchung

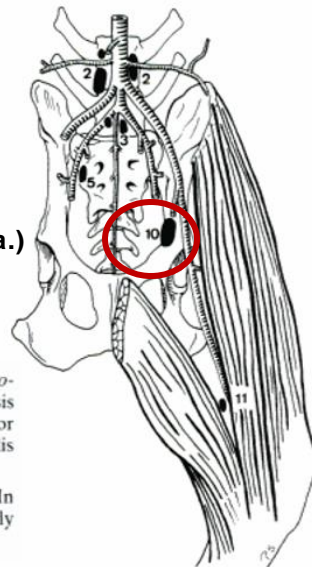
2. Lymphonodi iliaci med.

3. Lymphonodi sacrales

5. Lymphonodi hypogastrici

10. Lymphonodus iliofemorale

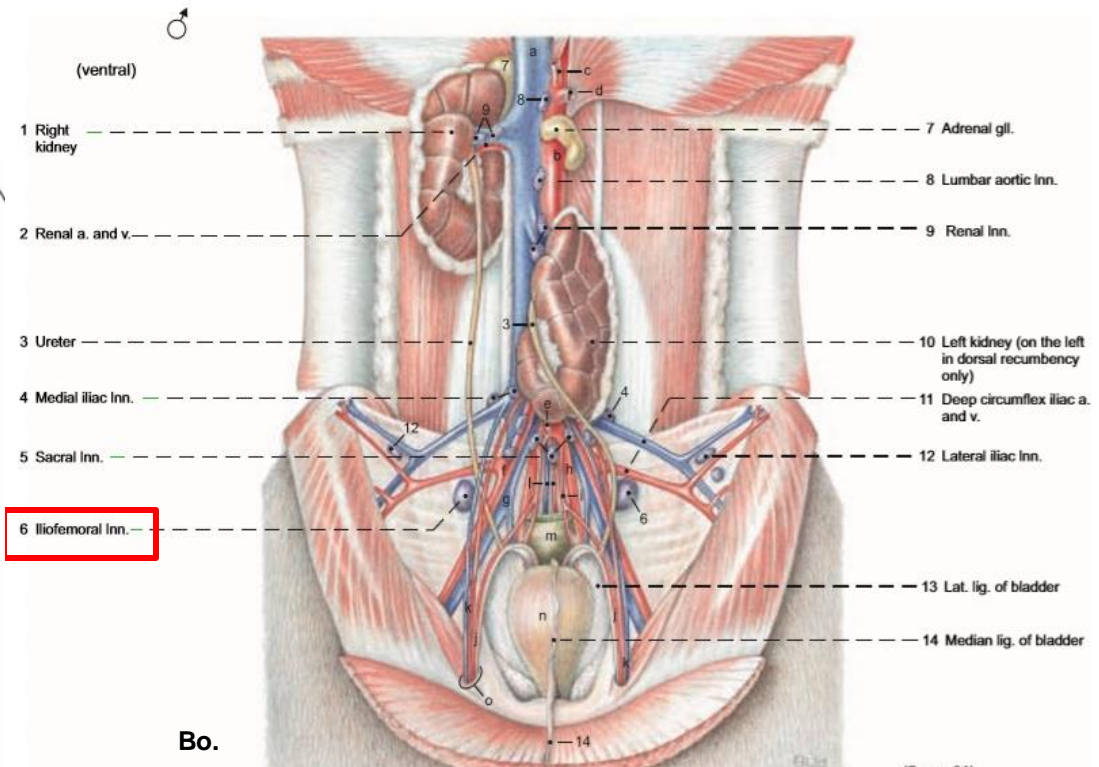
11. Lymphonodus femoralis (Ca.)



10 Lymphonodi iliofemorales [inguinales profundij]. At the cranial aspect of Corpus ossis ilii along A. iliaca externa (Car, su, Ru) or in Canalis femoralis along A. femoralis (eq). A B

11 Lymphonodus femoralis (Car). In the distal part of Canalis femoralis. Usually absent. A

A Iliosacral and -femoral lymphocentres, ventral aspect (ca)



LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum inguinale profundum seu iliofemorale:

2. NII. inguinales profundi :

- am Zugang der Schenkelspalt

- beim Pfd., Zg.

2. Lymphonodi iliaci med.

3. Lymphonodi sacrales

4. Lymphonodi iliaci lat

5. Lymphonodi hypogastrici

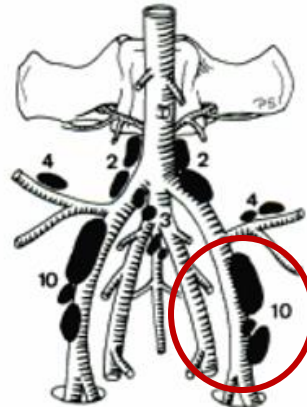
6. Lymphonodi anorectales

7. Lymphonodus uterinus (Su., Eq.)

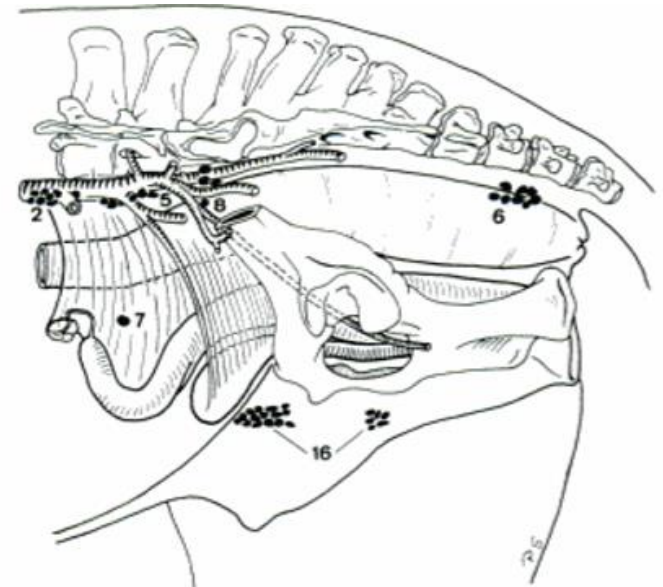
10. Lymphonodus iliofemorale (seu inguinales profundi (Eq.)

16. Lymphonodi mammarii

17. Lymphonodi subiliaci



B Lymph nodes in relation to the terminal branches of Aorta abdominalis, ventral aspect (bo)



D Iliosacral and inguinal lymphocentres (eq fem)

LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum inguinale profundum seu iliofemorale:

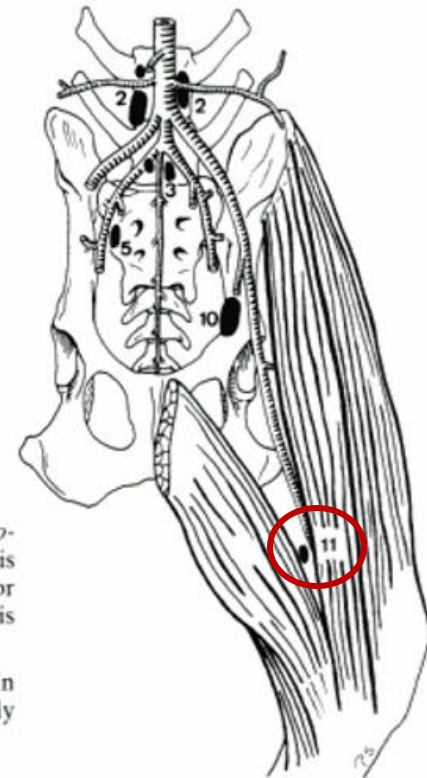
3. NII. femorales:

- liegen tiefer im Schenkelspalt

- bei Flfr.

- 2. Lymphonodi iliaci med.
- 3. Lymphonodi sacrales
- 5. Lymphonodi hypogastrici
- 10. Lymphonodus iliofemorale
- 11. Lymphonodus femoralis (Ca.)

- 10 *Lymphonodi iliofemorales [inguinales profundi]*. At the cranial aspect of Corpus ossis ilii along A. iliaca externa (Car, su, Ru) or in Canalis femoralis along A. femoralis (eq). A B
- 11 *Lymphonodus femoralis (Car)*. In the distal part of Canalis femoralis. Usually absent. A



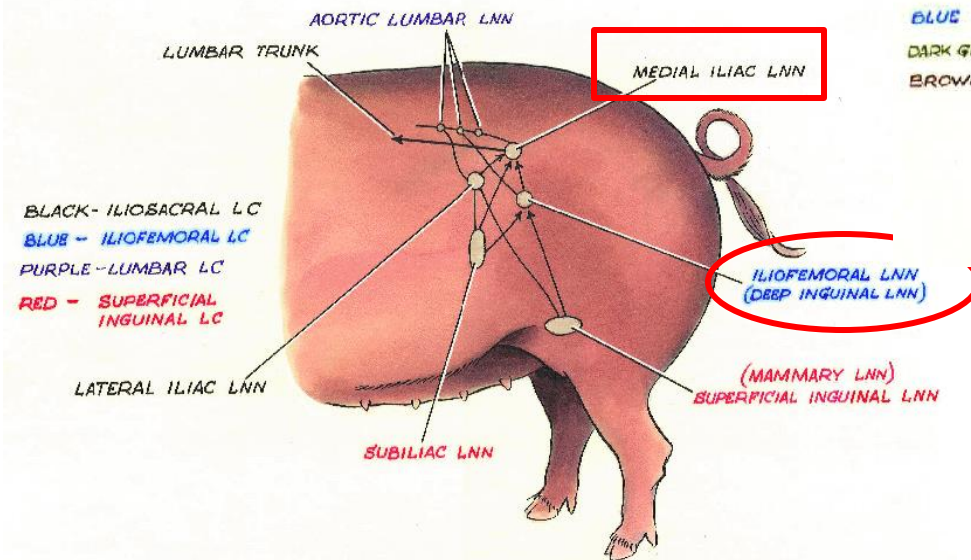
A Iliosacral and -femoral lymphocentres, ventral aspect (ca)

LYPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

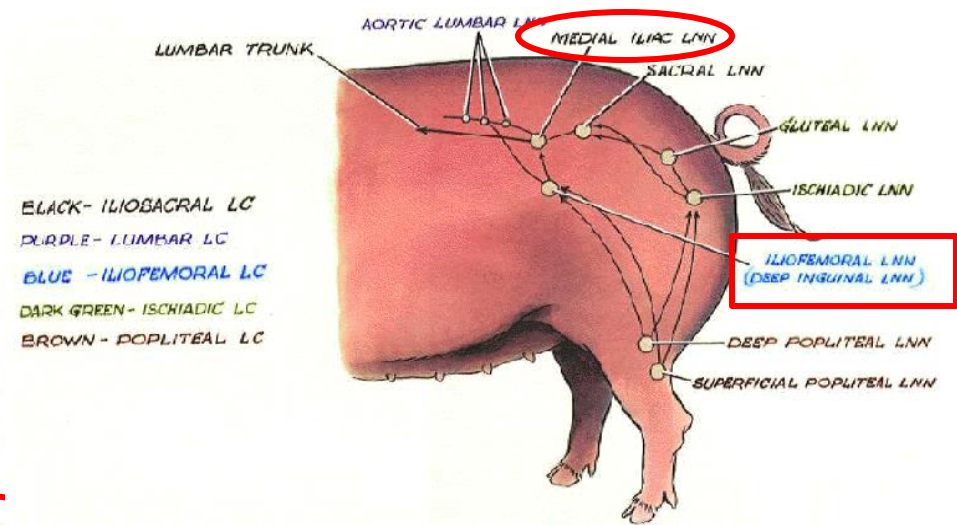
Lymphocentrum inguinale profundum seu iliofemorale:

Lymphabfluß:

- in die Lnn. iliaci mediales



<https://www.ucd.ie/vetnat/images/62.gif>



<https://www.ucd.ie/vetnat/images/19.gif>

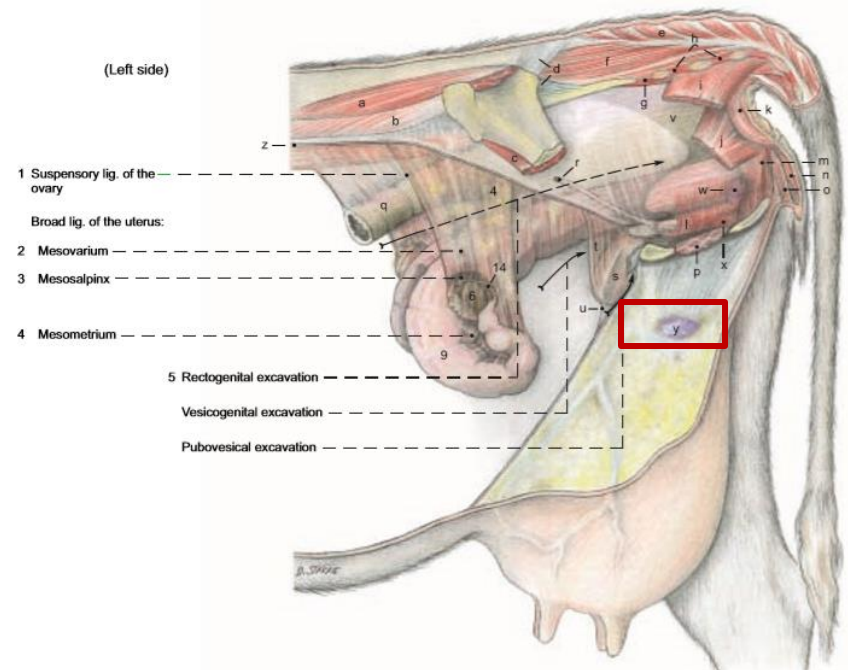
LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum inguinale superficiale seu inguinofemorale:

zwei Lymphknotengruppen:

1. Nll. inguinales superficiales (Leistenlymphknoten):

- liegen in der Leistenbeuge
- In der Aufteilung des Truncus pudendoepigastricus



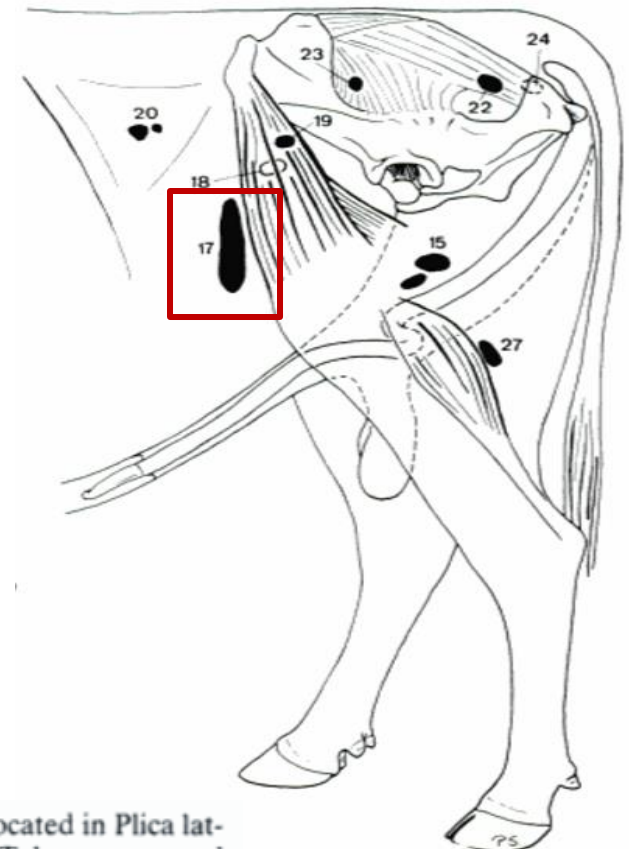
LYPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum inguinale superficiale seu inguinofemorale:

zwei Lymphknotengruppen:

2. III. subiliaci (Kniefaltenlymphknoten):

- liegen in der Kniefalte



17 *Lymphonodi subiliaci*. Located in Plica lateralis halfway between Tuber coxae and patella. Usually absent in Car. C

C Inguinal, ischiadic, and popliteal lymphocentres (bo masc)

LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum inguinale superficiale seu inguinofemorale:

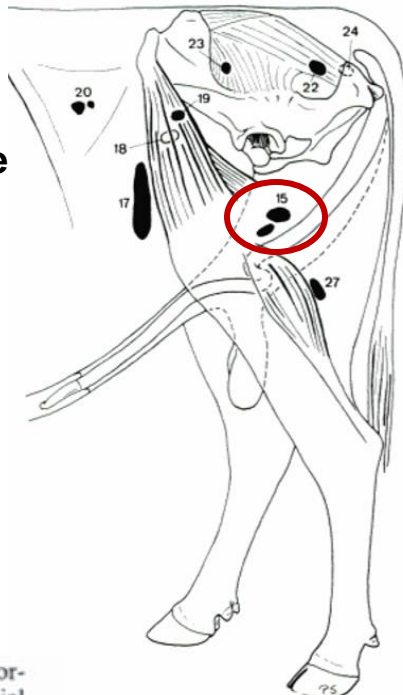
3. Nll. scrotales:

- bei männlichen Tieren heißen die Nll. inguinales superficiales als Nll. scrotales

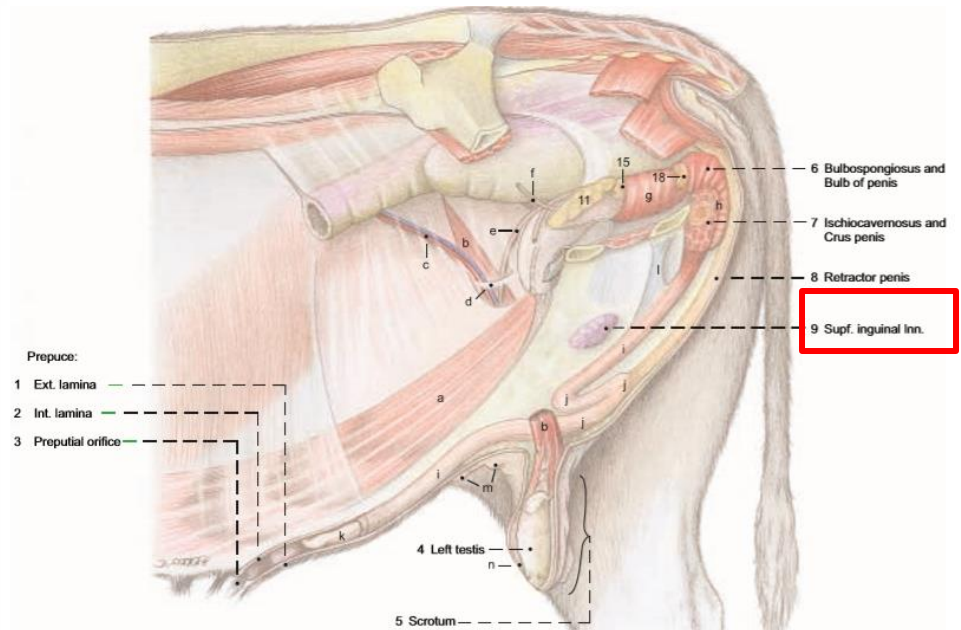
Einzugsgebiet:

a. Scrotum

b. Begattungsorgane



C. Inguinal, ischiadic, and popliteal lymphocentres (bo masc)



15 Lymphonodi scrotales. Along the dorso-lateral aspect of penis (except fe) cranial (Car, su, eq) and/or caudal (su, Ru, eq) to Funiculus spermaticus. Drain penis and scrotum. C

LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

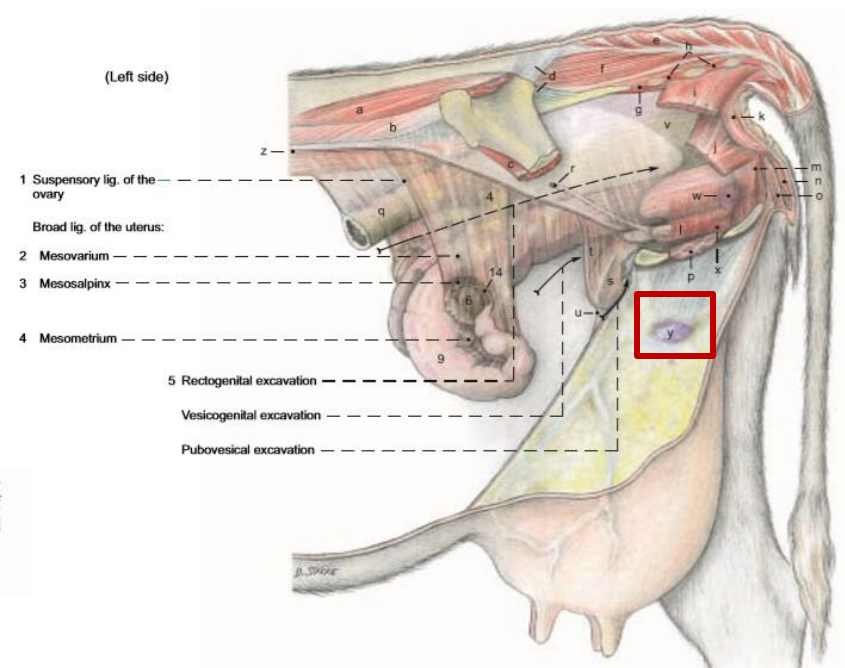
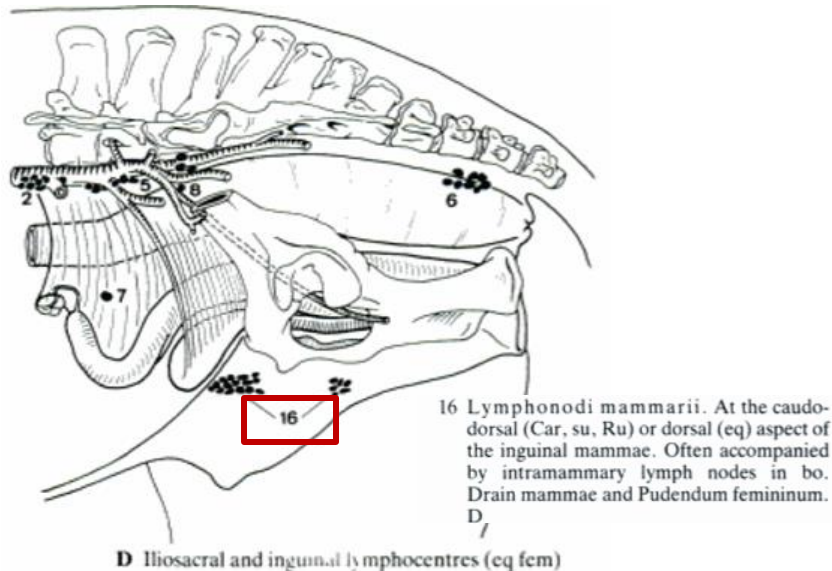
Lymphocentrum inguinale superficiale seu inguinofemorale:

4. Nil. mammarii (Euterlymphknoten):

- bei weiblichen Tieren heißen die Nil. inguinales superficiales als Nil. mammarii

Einzugsgebiet:

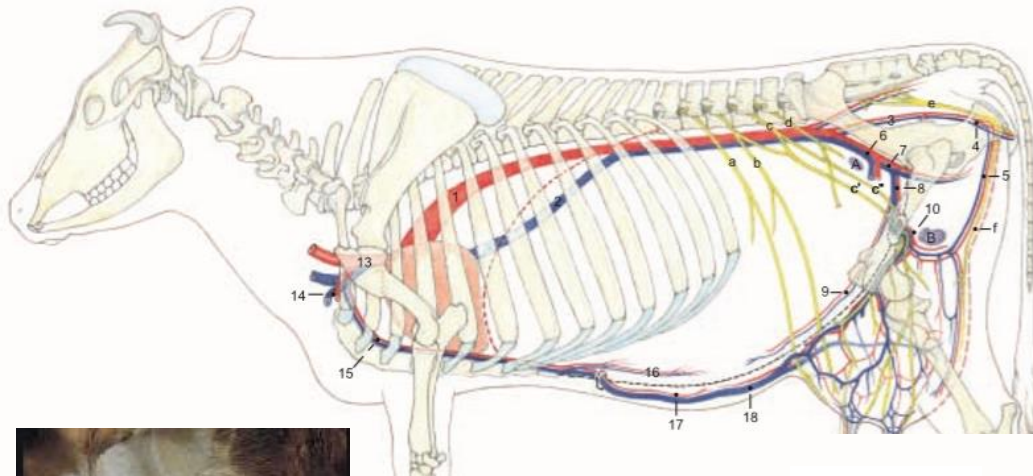
- a. Euter (Wdk., Pfd.)
- b. inguinale Milchdrüsenkomplex (Flfr., Schw.)
- c. ein Teil der abdominalen Milchdrüsenkomplex (Flfr., Schw.)



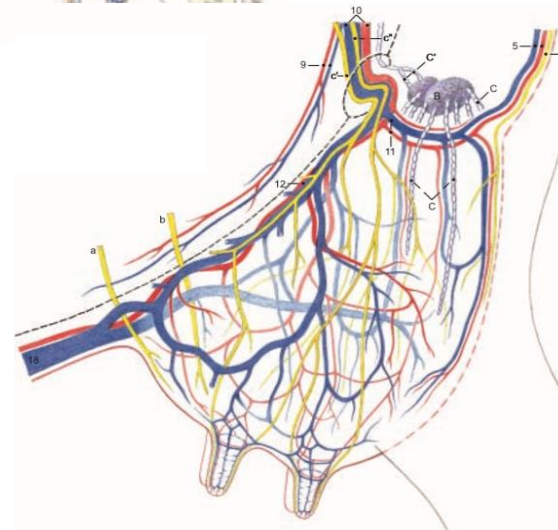
LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum inguinale superficiale seu inguinofemorale:

4. Nll. mammarii (Euterlymphknoten):



- a Iliohypogastric n.
- b Ilioinguinal n.
- c Genitofemoral n.
- c' Cran. branch
- c'' Caud. branch
- d Lat. cut. femoral n.
- e Pudendal n.
- f Mammary br. of pudendal n.



- 1 Aorta
- 2 Caud. vena cava
- 3 Int. iliac a. and v.
- 4 Int. pudendal a. and v.
- 5 Vent. labial v. and mammary br. of vent. perineal a.
- 6 Ext. iliac a. and v.
- 7 Deep femoral a. and v.
- 8 Pudendoepigastric vessels
- 9 Caud. epigastric a. and v.
- 10 Ext. pudendal a. and v.
- 11 Caud. mammary a. and v.
- 12 Cran. mammary a. and v. [Caud. supf. epigastric a. and v.]
- 13 Brachiocephalic trunk and cran. vena cava
- 14 Left subclavian a. and v.
- 15 Int. thoracic a. and v.
- 16 Cran. epigastric a. and v.
- 17 Cran. supf. epigastric a.
- 18 Subcutaneous abdominal v. [Cran. supf. epigastric v.]

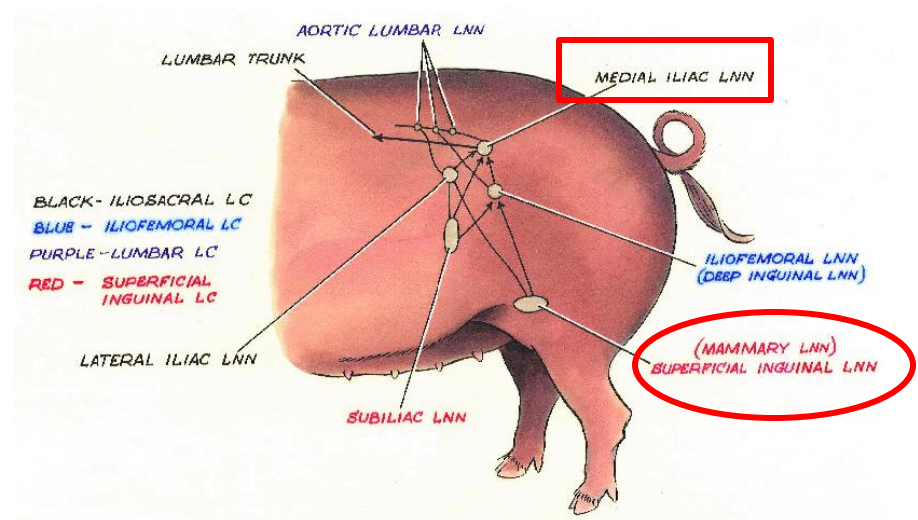
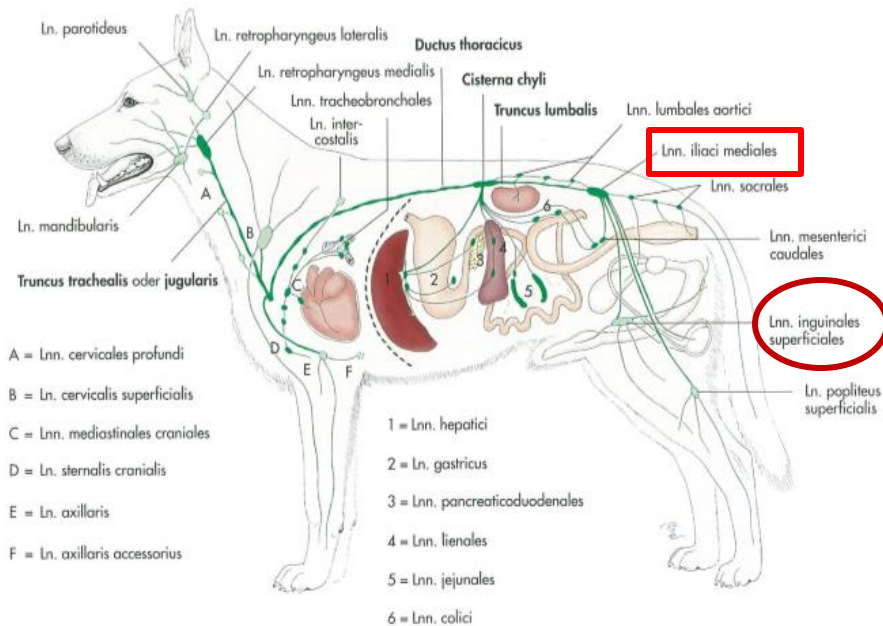
- A Iliofemoral ln. [Deep inguinal ln.]
- B Mammary ln. [Supf. inguinal ln.]
- C Afferent lymphatic vessels
- C' Efferent lymphatic vessels

LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum inguinale superficiale seu inguinofemorale:

Lymphabfluß:

- in die Lnn. iliaci mediales



<https://www.ucd.ie/vetanat/images/62.gif>

LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

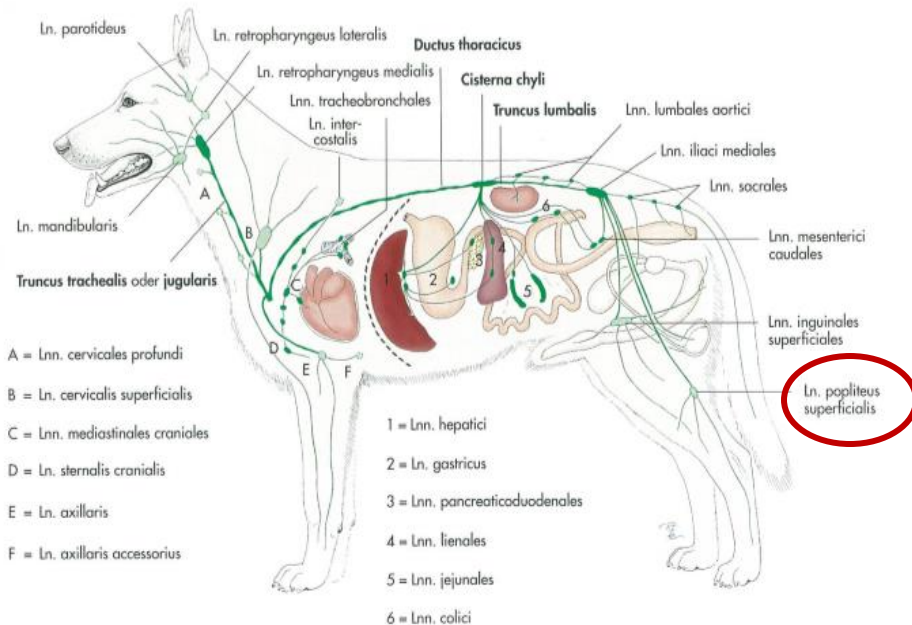
Lymphocentrum popliteum (Kniekehlymphknoten):

- in der Kniekehle

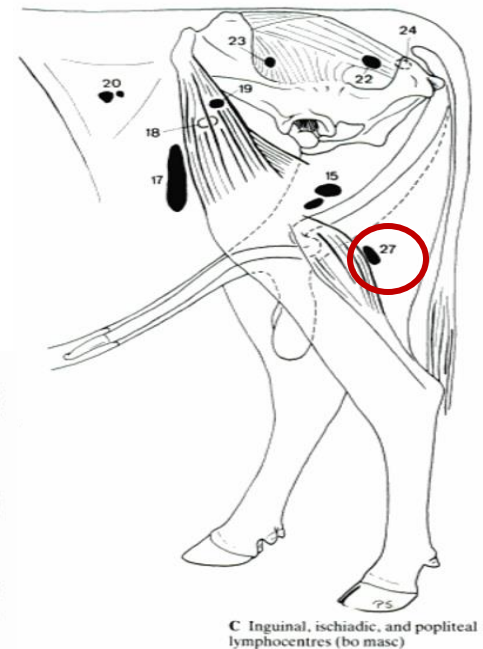
1. oberflächliche Gruppe - Nll. poplitei superficiales

2. tiefe Gruppe – Nll. poplitei profundi

- unterliegen diese Knoten des Schw., Wdk., Pfd., der sorgfältigen fleischbeschaulichen Untersuchung



- ischiadicum. Described also in cap. C
- 25 *Lymphocentrum popliteum*. In Regio poplitea, drains the distal parts of the pelvic limb.
- 26 *Lymphonodi poplitei*. In poples.
- 27 *Lymphonodi poplitei profundi* (su, Ru, eq). Deep in poples, caudoproximal to M. gastrocnemius. May be absent (su). C
- 28 *Lymphonodi poplitei superficiales* (Car, su). Superficially in Fossa poplitea, exceptionally absent in su.



C. Inguinal, ischiadic, and popliteal lymphocentres (bo masc)

LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

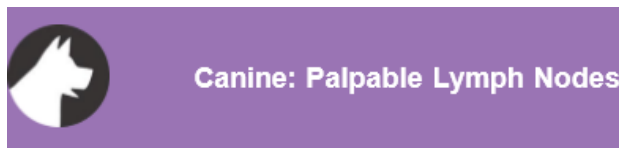
Lymphocentrum popliteum (Kniekehlymphknoten):

1. Nll. poplitei superficiales:

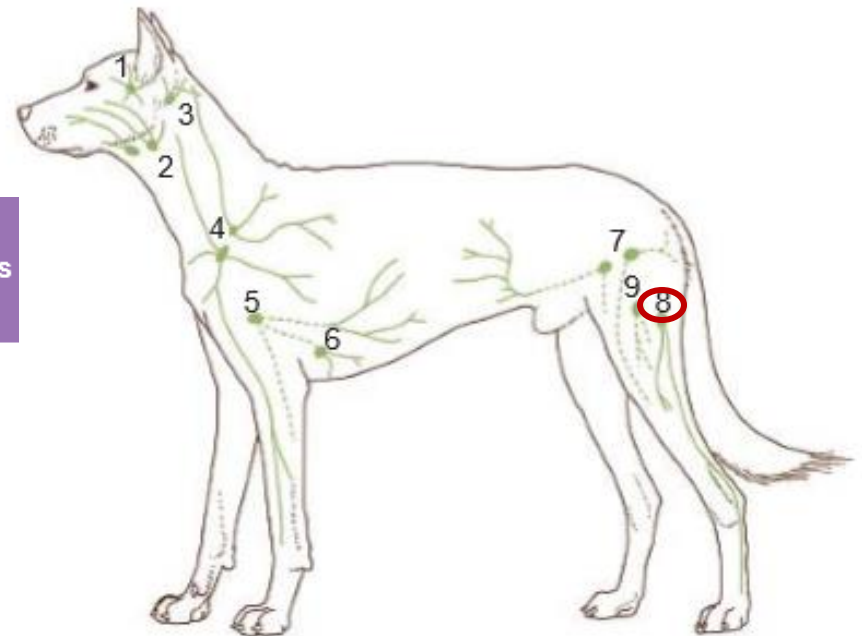
- **bei Flfr.**
- zwischen den M. biceps femoris und semitendinosus
- unter der Haut tastbar

Einzugsgebiet:

- distaler Teil der Hintergliedmaße



1. Parotid
2. Mandibular
3. Lateral retropharyngeal (inconstant)
4. Superficial cervical
5. Axillary
6. Accessory axillary (inconstant)
7. Superficial inguinal
8. Popliteal
9. Femoral (inconstant)



LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

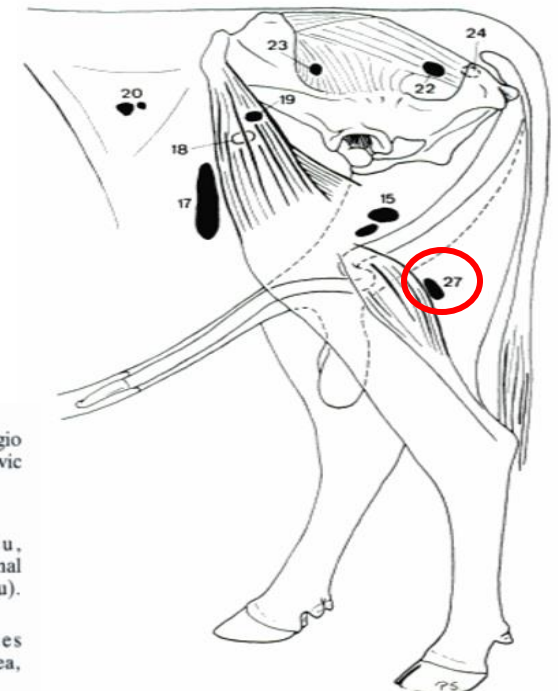
Lymphocentrum popliteum (Kniekehllymphknoten):

2. NII. poplitei profundi:

- beim Wdk., Pfd.
- in der Tiefe zwischen den M. biceps femoris und semitendinosus
- an der A. poplitea

Einzugsgebiet:

- distaler Teil der Hintergliedmaße



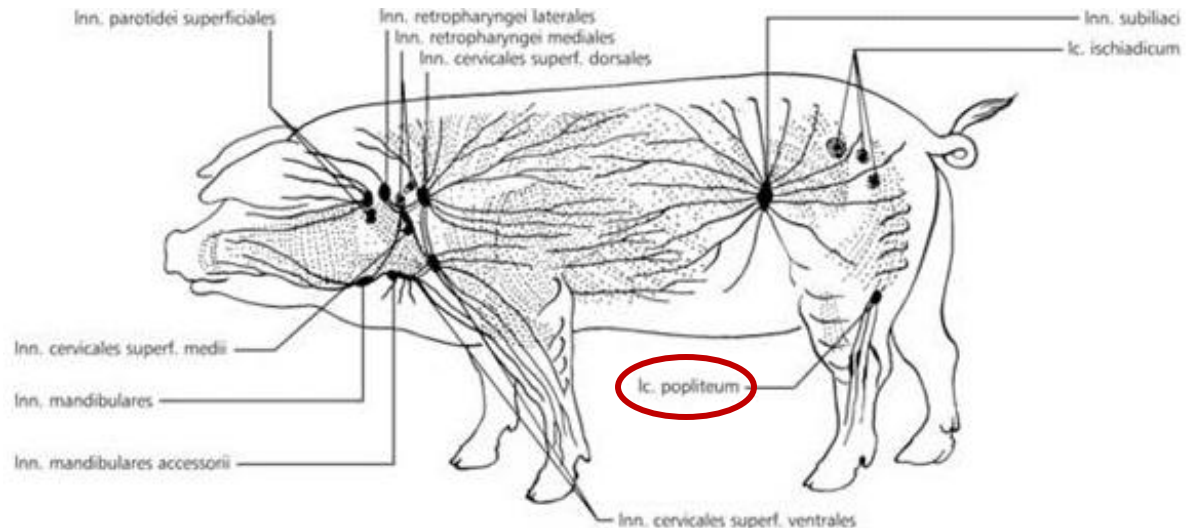
- ischiadicum. Described also in cap. C
- 25 *Lymphocentrum popliteum*. In Regio poplitea, drains the distal parts of the pelvic limb.
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- 27 *Lymphonodi poplitei profundi* (su, Ru, eq). Deep in poples, caudoproximal to M. gastrocnemius. May be absent (su). C
- 28 *Lymphonodi poplitei superficiales* (Car, su). Superficially in Fossa poplitea, exceptionally absent in su.

LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum popliteum (Kniekehllymphknoten):

Schw. besitzt:

- die Nll. poplitei superficiales (in ca. 80% der Fälle)
- die Nll. poplitei profundi (in ca. 40% der Fälle)

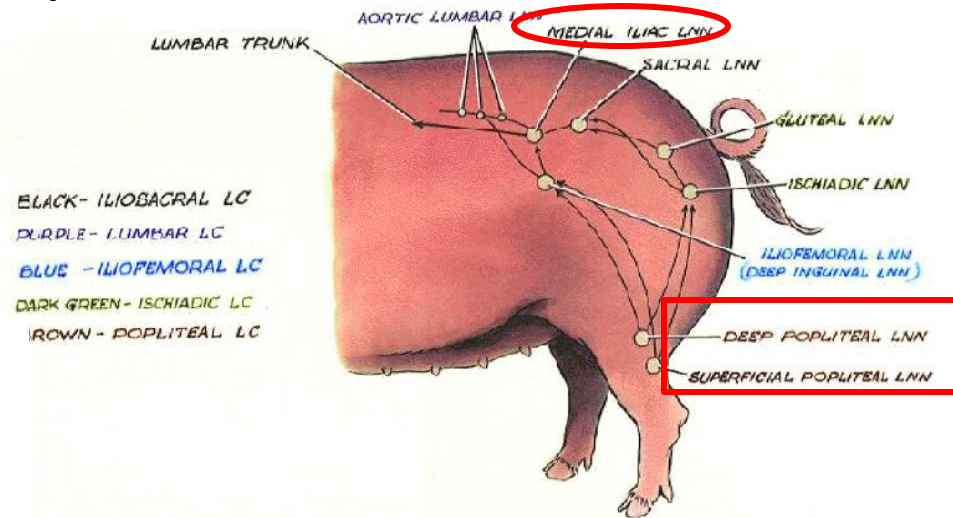
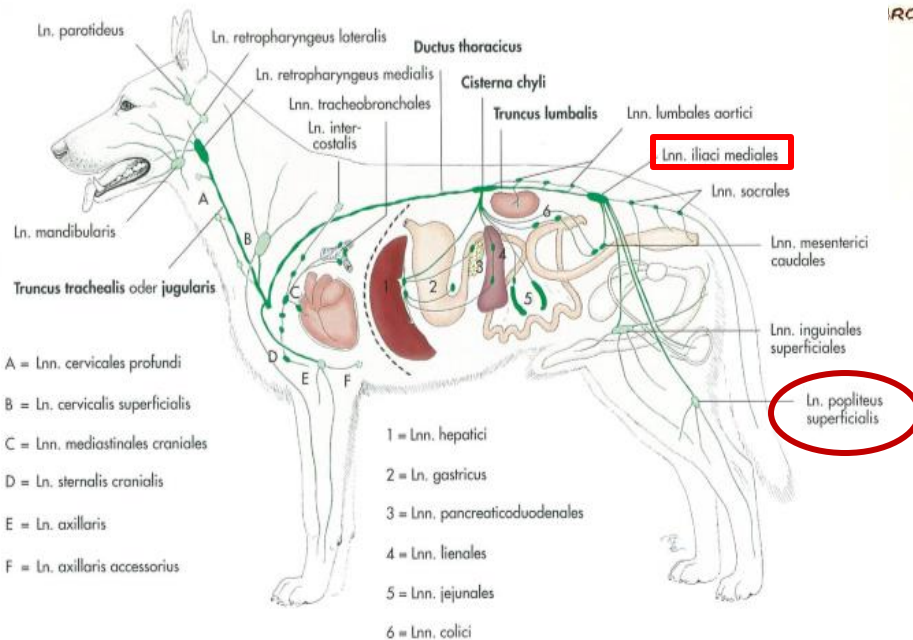


LYPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphocentrum popliteum (Kniekehlymphknoten):

Lymphabfluß:

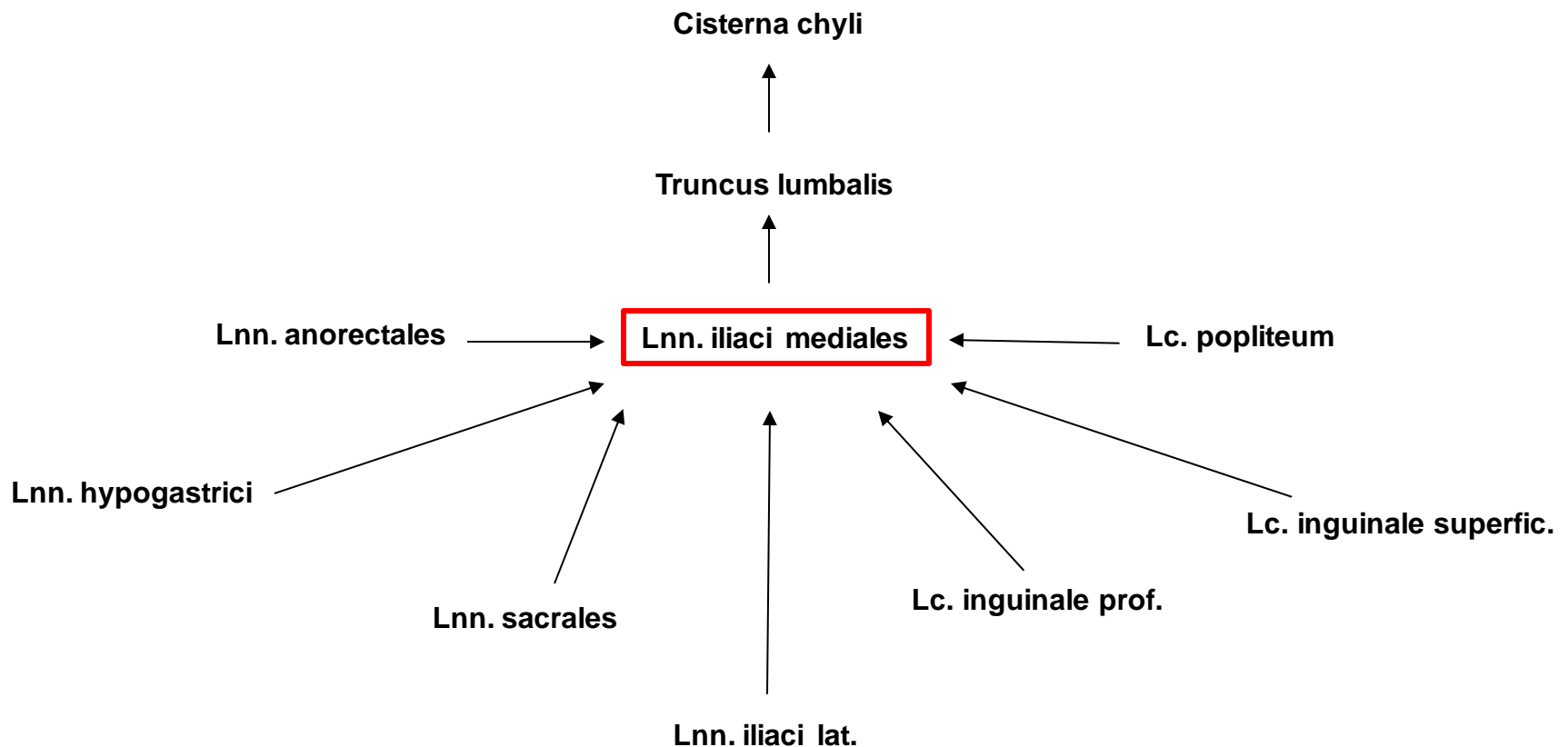
- an die Lnn. iliaci mediales



<https://www.ucd.ie/vetnat/images/19.gif>

LYMPHGEFÄßSYSTEM DER SEITLICHEN und VENTRALEN BAUCHWAND, DES BECKENS, und DESSEN EINGEWEIDE, und DER BECKENGLIEDMAßE

Lymphabfluß:



**DANKE FÜR IHRE
AUFMERKSAMKEIT!**



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