ULTRAZVUKOVÉ VYŠETŘENÍ PERIFERNÍCH LYMFATICKÝCH UZLIN

Radka Šlaisová

Klinika radiologie a nukleární medicíny FN Brno a LF MU

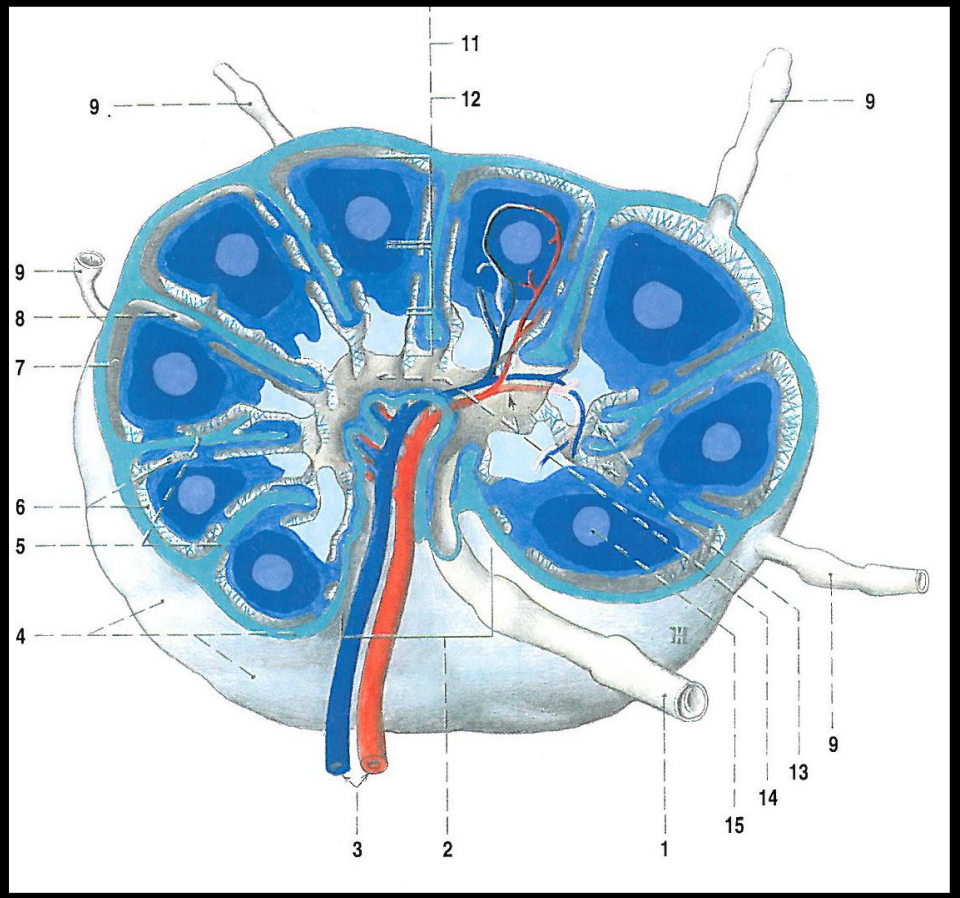
- Metoda volby při podezření na periferní lymfadenopatii

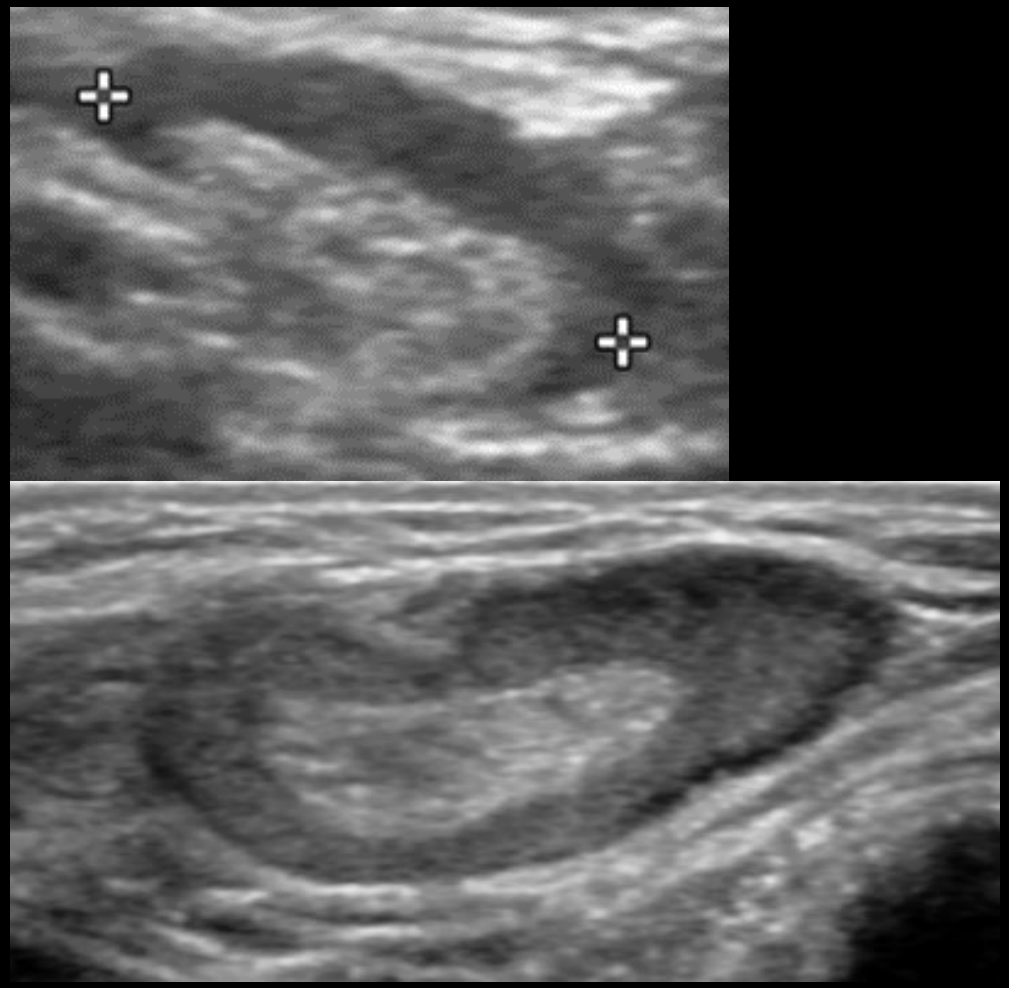
- Lineární vysokofrekvenční sondy, detailní zhodnocení echostruktury – benigní vs maligní etiologie

- Velikost, tvar
- Echogenita
- Ohraničení
- Nekrózy
- Kalcifikace
- Vaskularizace

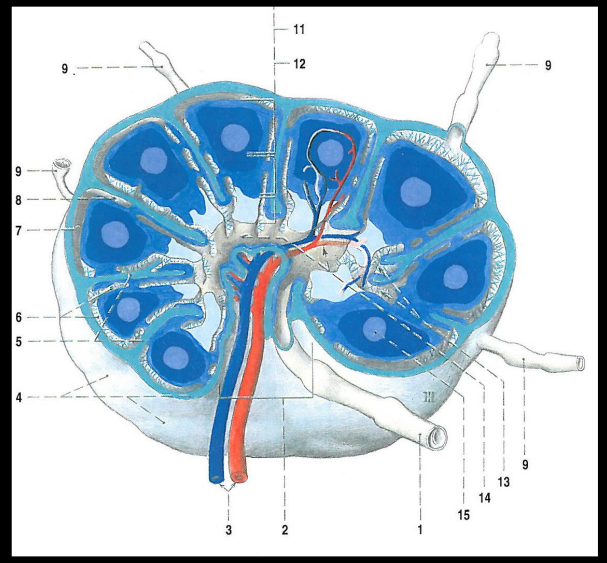
Dudea SM, Lenghel M, Botar-Jid C, et al. Ultrasonography of superficial lymph nodes: benign vs. malignant. Med Ultrason. 2012 Dec;14(4):294-306.

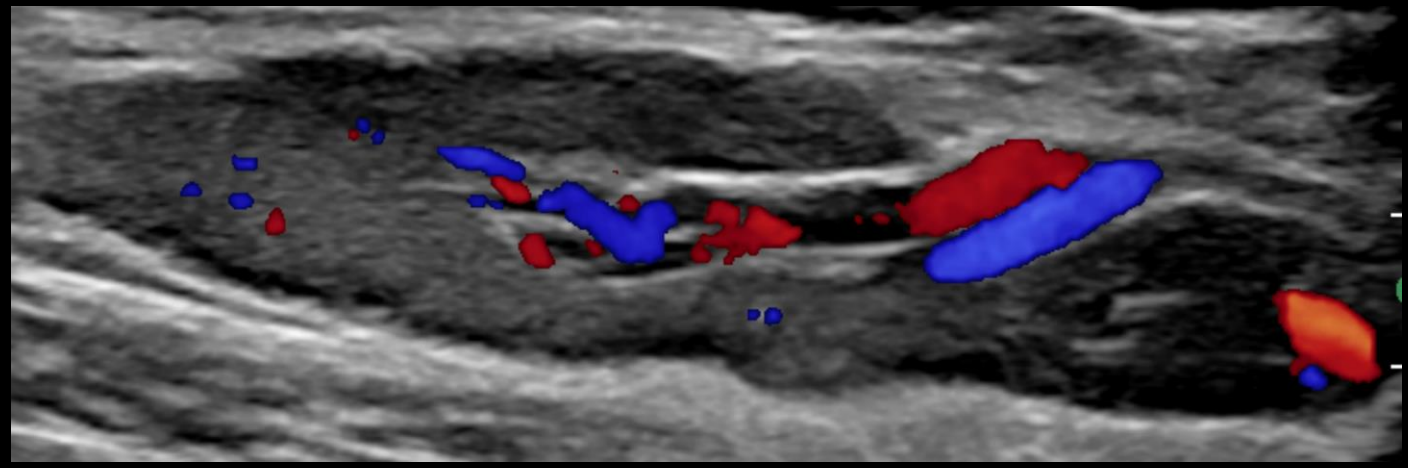
Normální LU



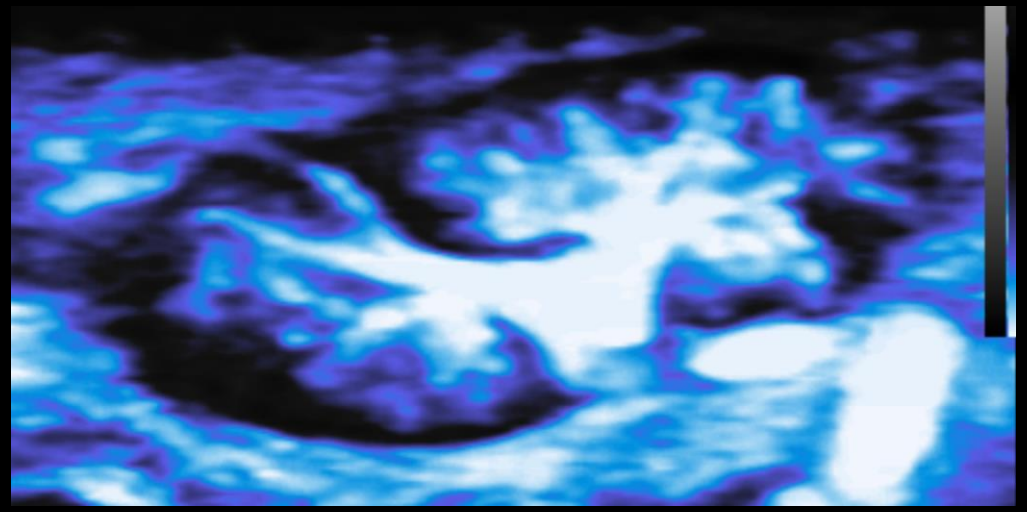


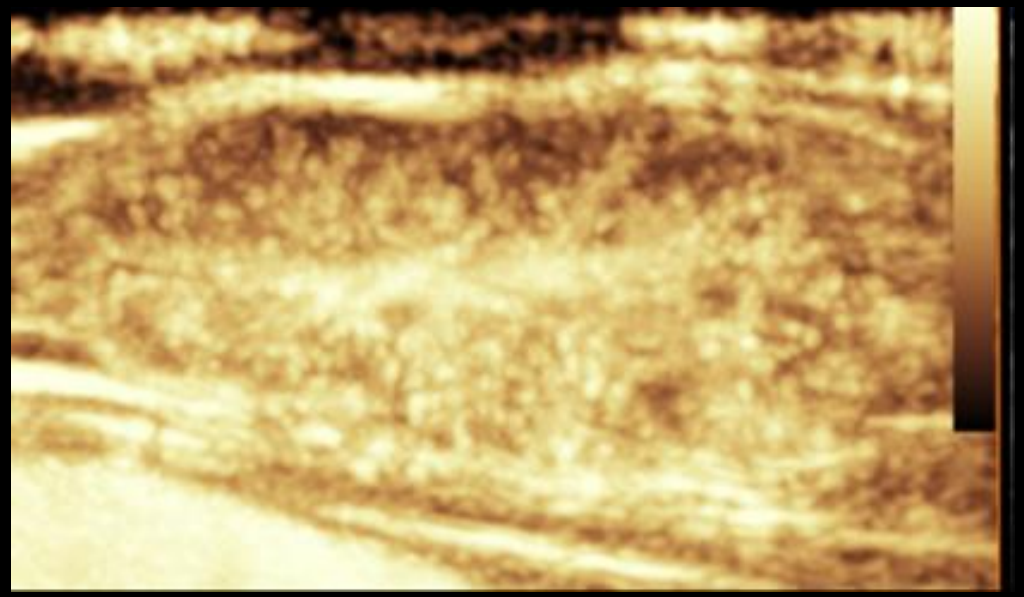
- *Čihák R. Anatomie 3. 1., Praha: Grada Publishing 1997, str.172. ISBN 80-7169-140-2.*

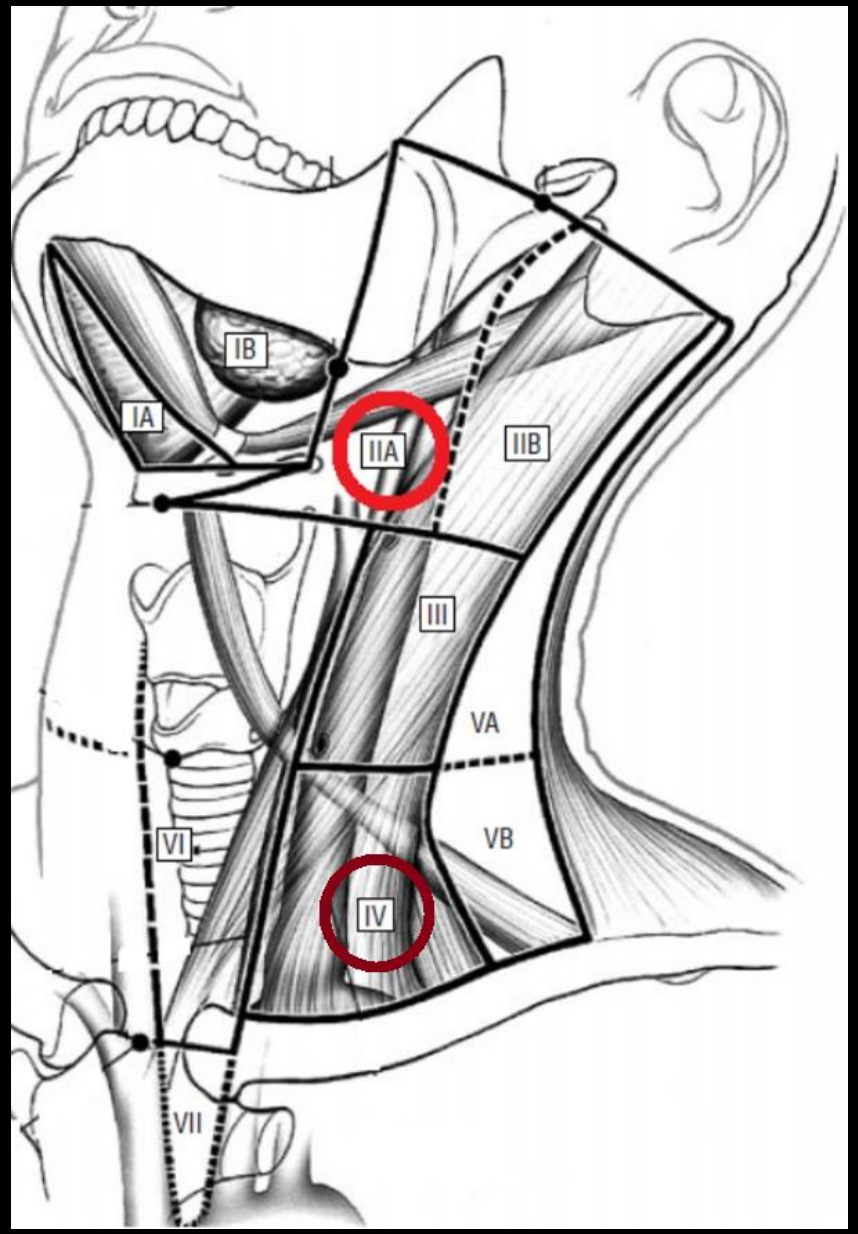




- *Čihák R. Anatomie 3. 1., Praha: Grada Publishing 1997, str.172. ISBN 80-7169-140-2.*







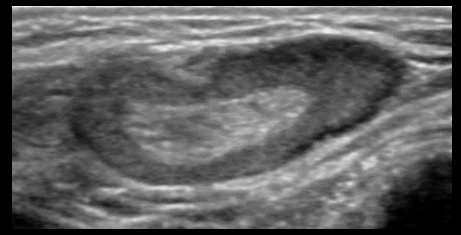
Velikost uzlin

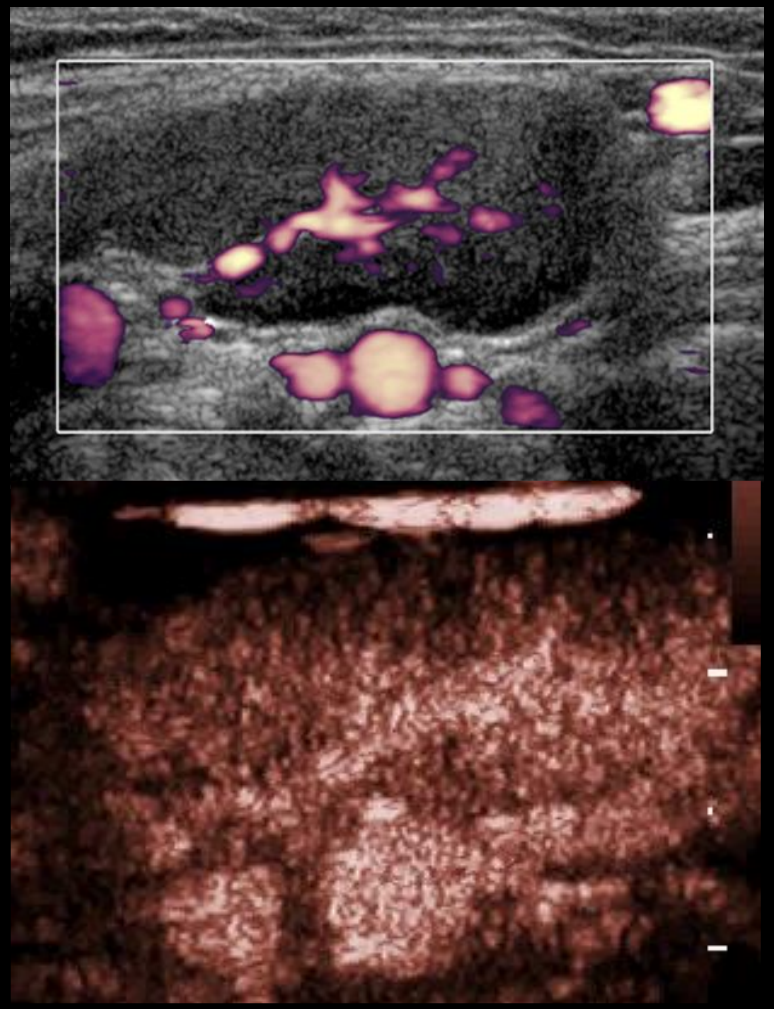
- lokalita
- věk

- Virchowova uzlina - IV

Som PM, Curtin HD, Mancuso AA. An imaging-based classification for the cervical nodes designed as an adjunct to recent clinically based nodal classifications. Arch Otolaryngol Head Neck Surg. 1999;125(4):388-96.

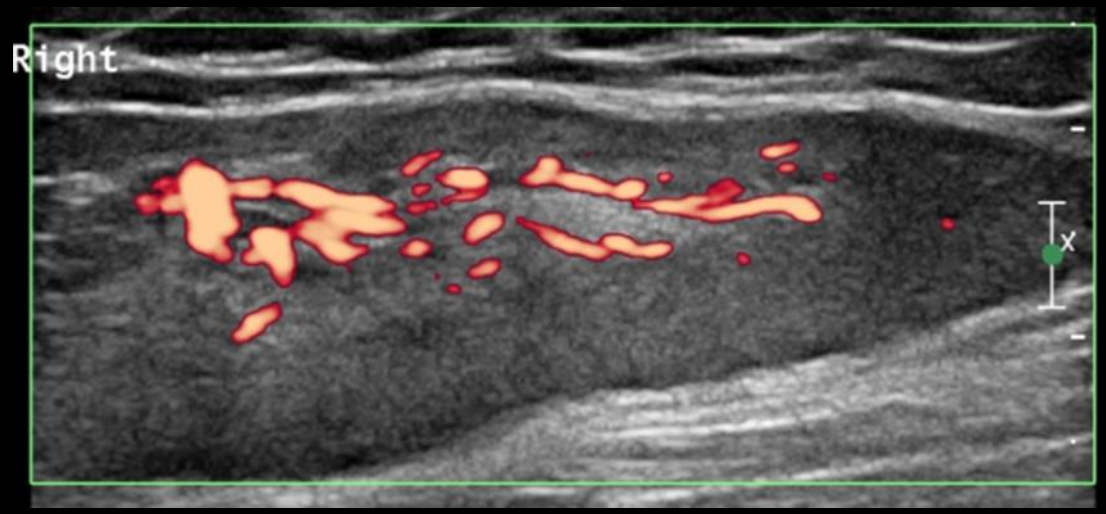
Reaktivní lymfadenopatie



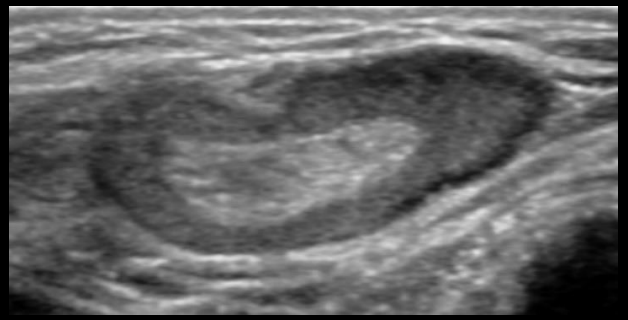


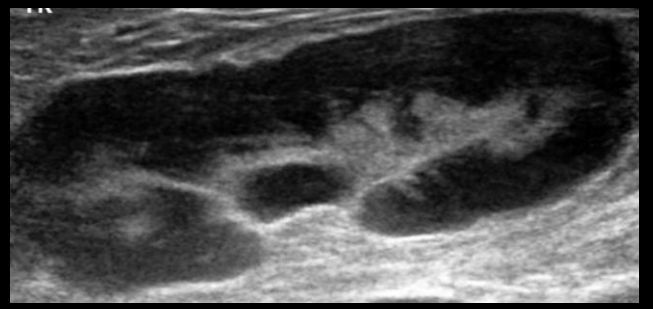
Sinusová histiocytóza

- imunitní stimul ze spádové oblasti
- systémové choroby

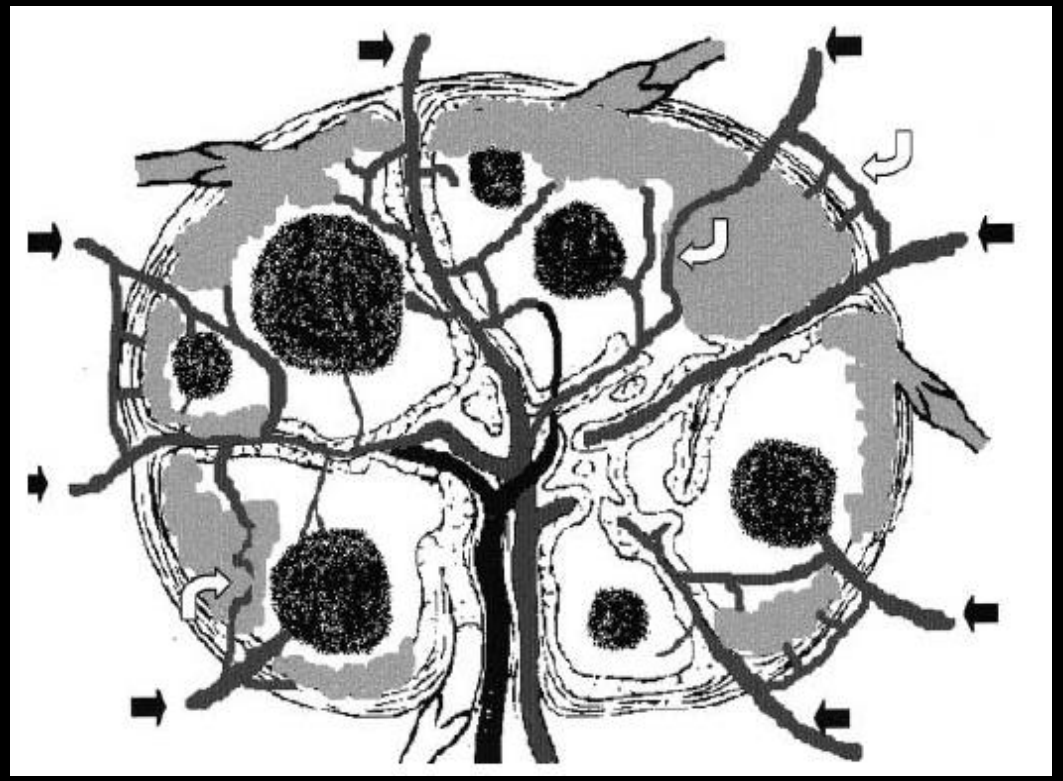


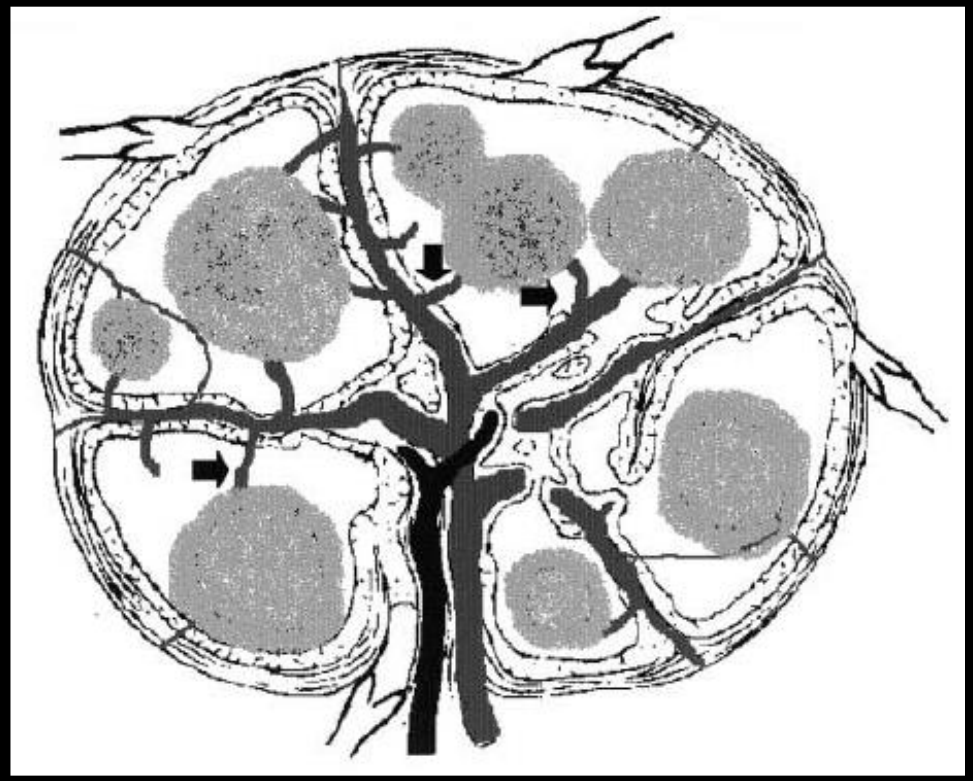
Chron. žilní insuficience, trofické změny kůže
tříselná LU délky 55 mm, stac. od r. 2011





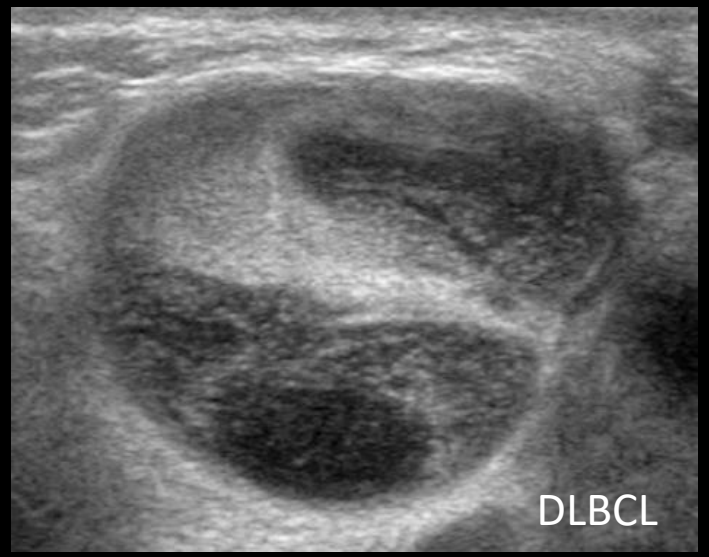
DLBCL
LT index

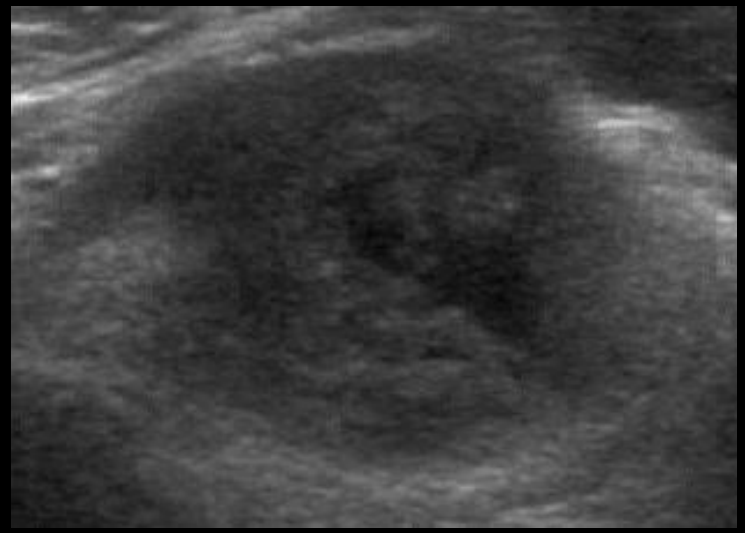




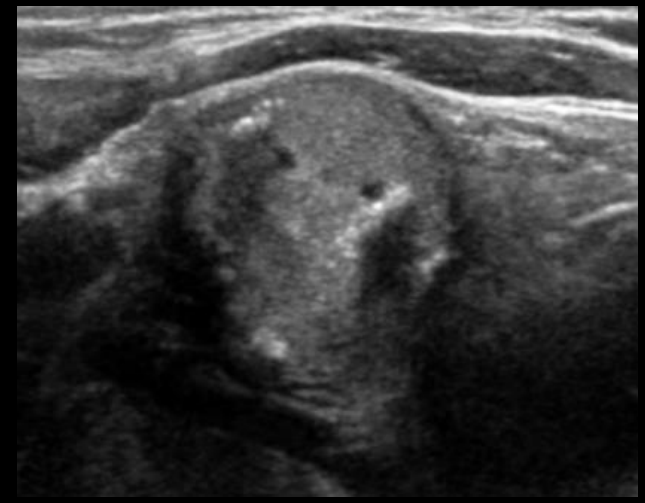
- *Giovagnorio F, Galluzzo M, Adreoli Ch, et al. Color Doppler Sonography in the Evaluation of Superficial Lymphomatous Lymph Nodes. J Ultrasound Med 2002, 21:403-408*

Echogenita, nekrózy

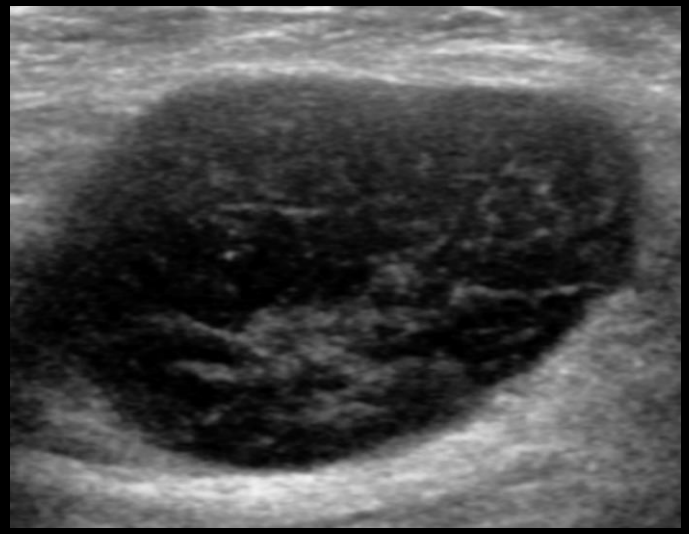




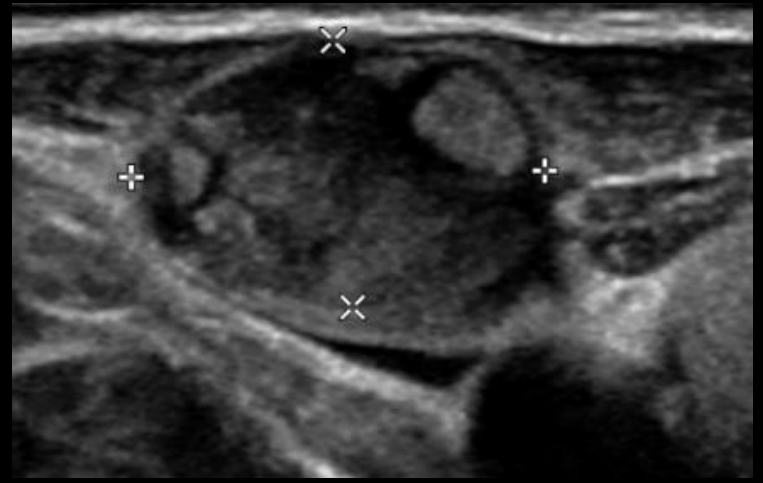
SpinoCa dutiny ústní, patrové tonsily



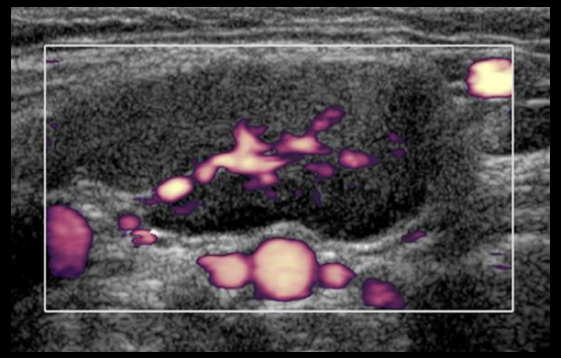
Papilární ca štítnice

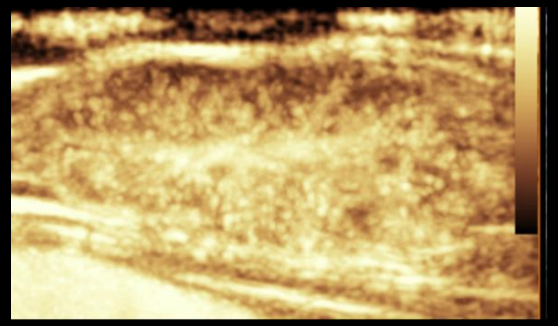


High grade B lymfom, NOS



Vaskularizace



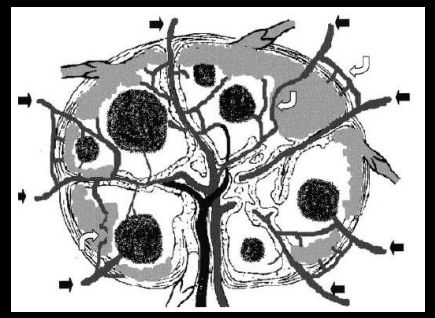


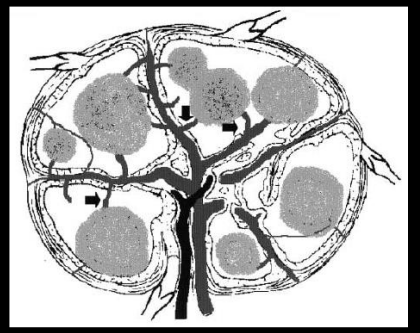
- Odtlačení intranodálních cév
- Avaskulární intranodální okrsky
- Akcesorní hilové cévy
- Subkapsulární cévy v periferii

- *Tschammler A, Ott G, Schang T, et al. Lymphadenopathy:differentiation of benign from malignant disease-color Doppler US assessment of intranodal Angioarchitecture. Radiology 1998;208:117-123*
- *Bialek EJ, Jakubowski W, Szczepanik AB, et al. Vascular patterns in superficial lymphomatous lymph nodes: A detailed sonographic analysis. Journal of Ultrasound 2007;10:128-134.*

- CEUS – hypovaskularizované uzliny

- *Jin Y., He YS., Zhang MM et al. Value of contrast-enhanced ultrasonography in the differencial diagnosis of enlarged lymph nodes: a meta-analysis of diagnostic accuracy studies. Asian Pac J Cancer Prev, 2015;16(6): 2361-2368.*





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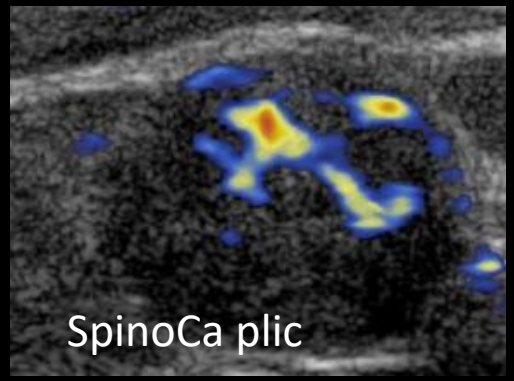
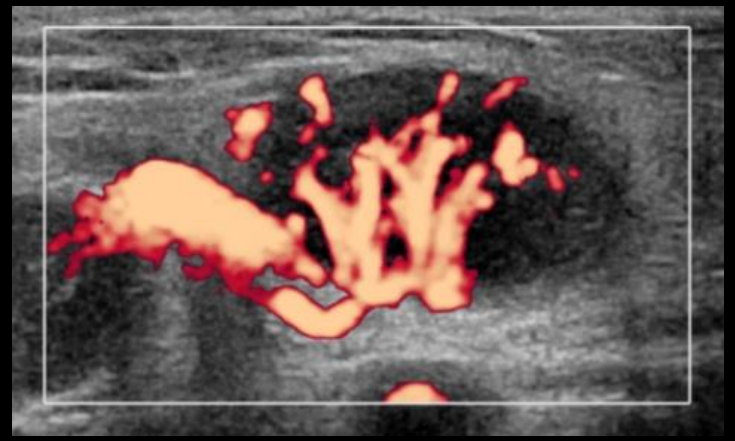
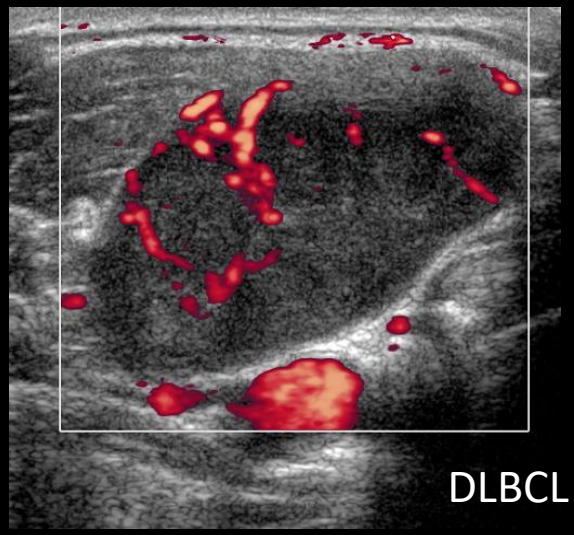




Periferní T lymfom



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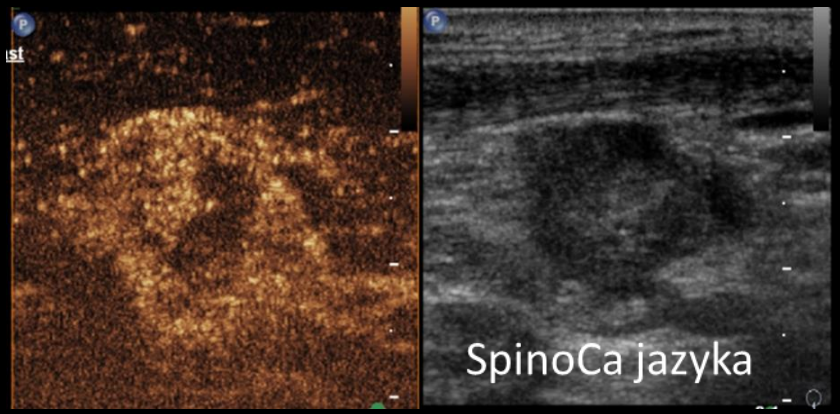
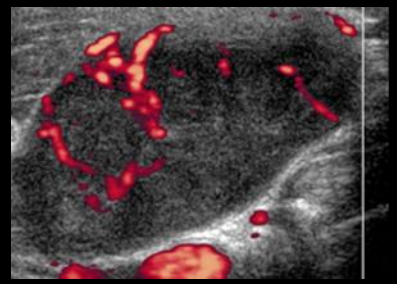
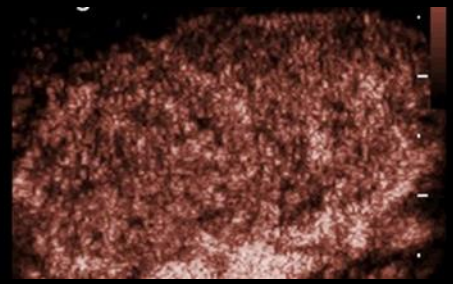
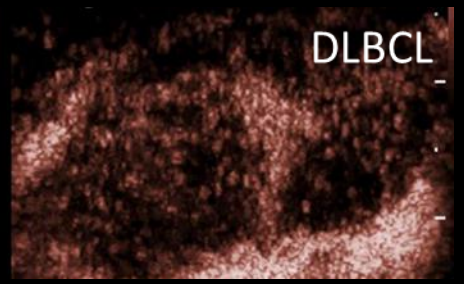


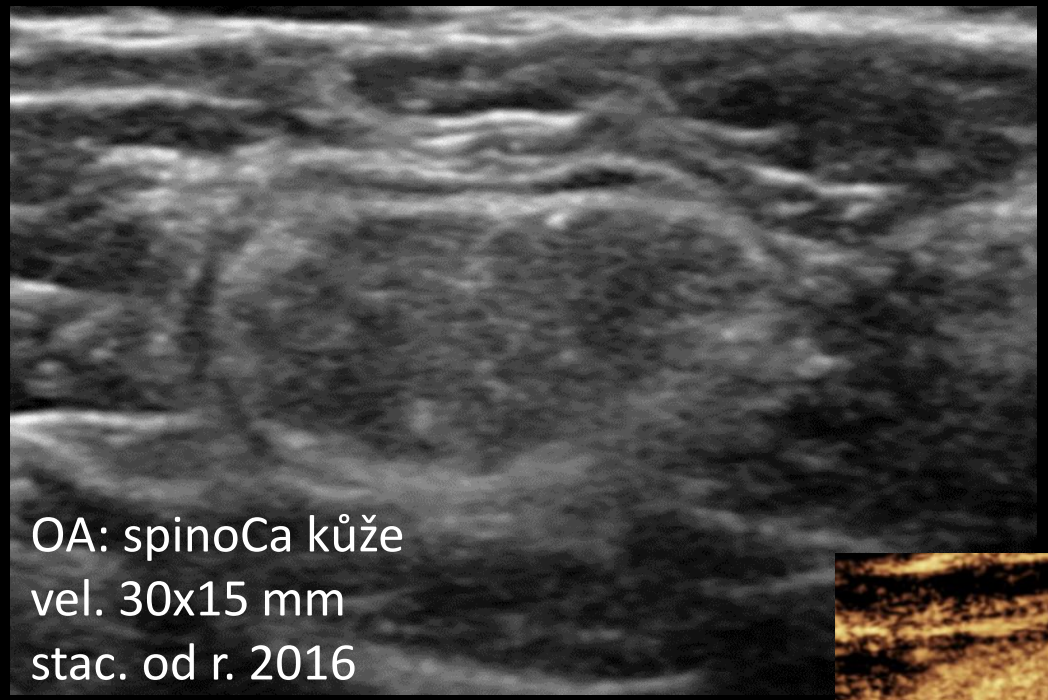




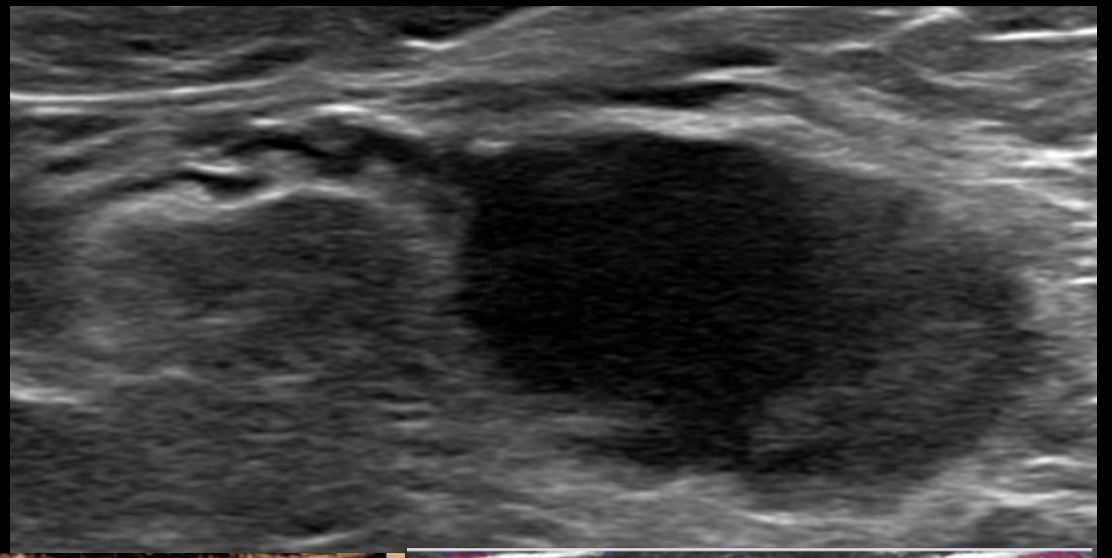


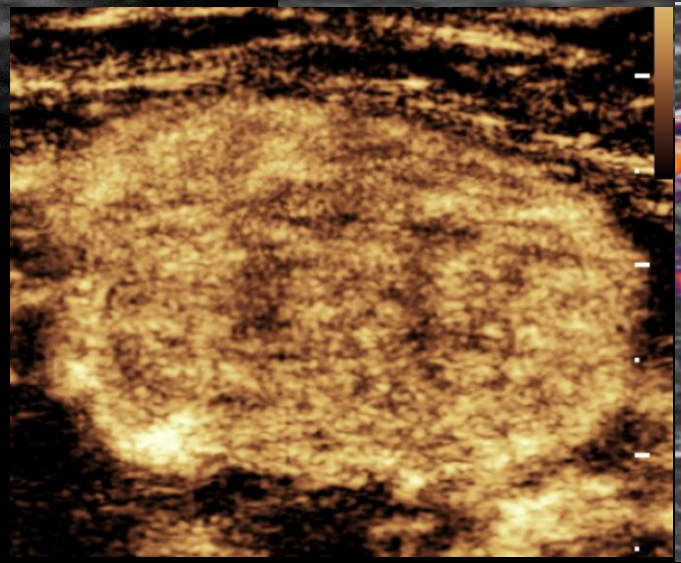
Diagnostické omyly

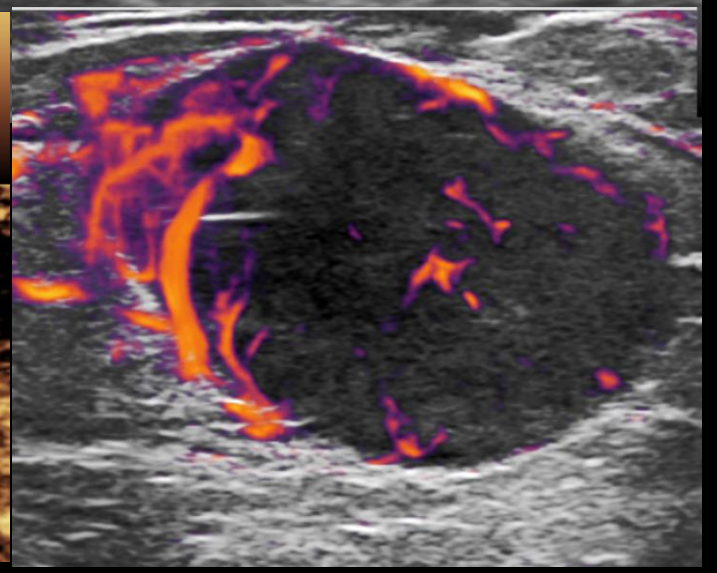
Lipomatózní přestavba



OA: spinoCa kůže
vel. 30x15 mm
stac. od r. 2016

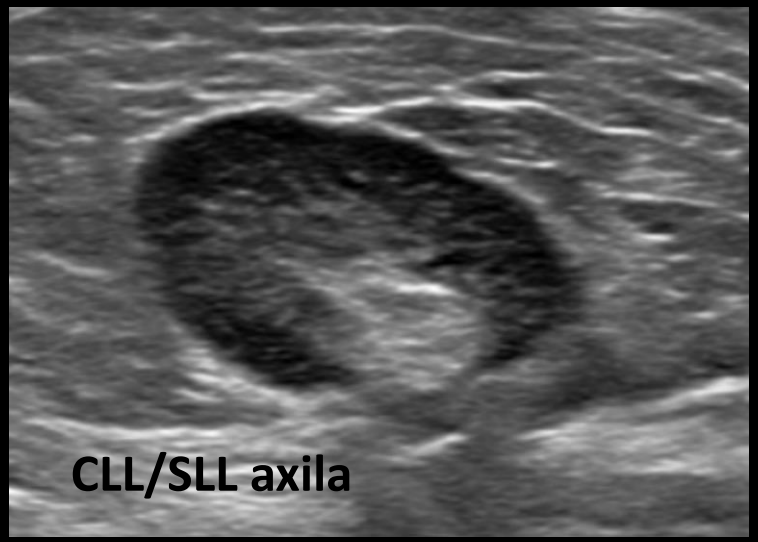


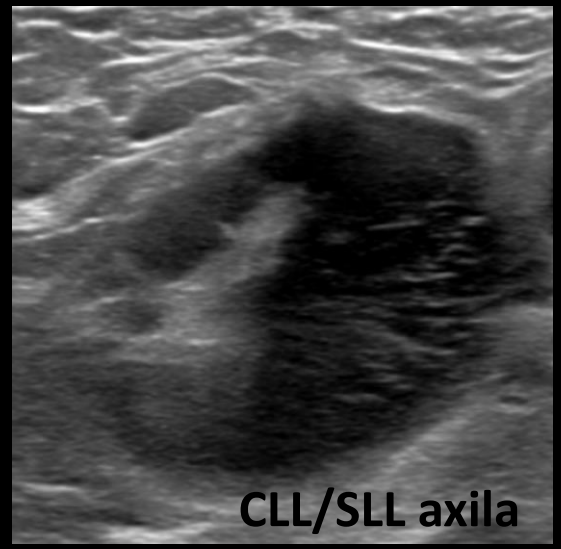


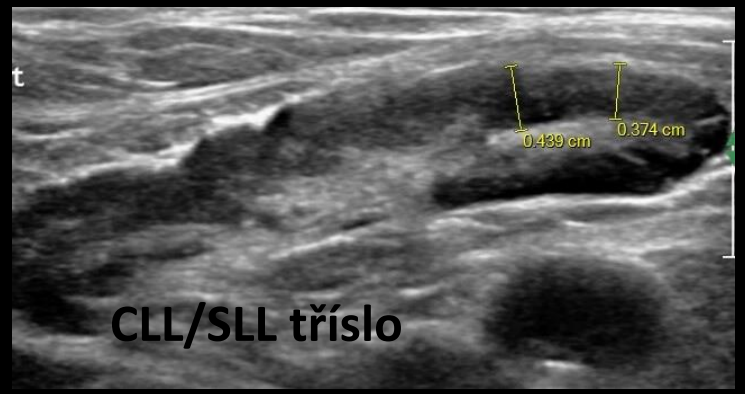


OA: papilární uroteliální Ca MM
axil. LU vel. 32x18 mm
cHL-MC

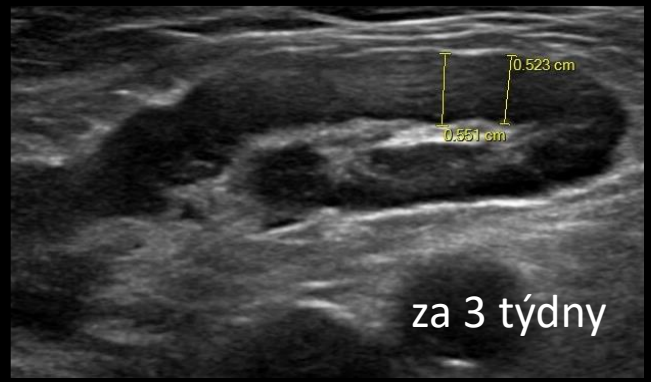
Lymfomy


CLL/SLL axila

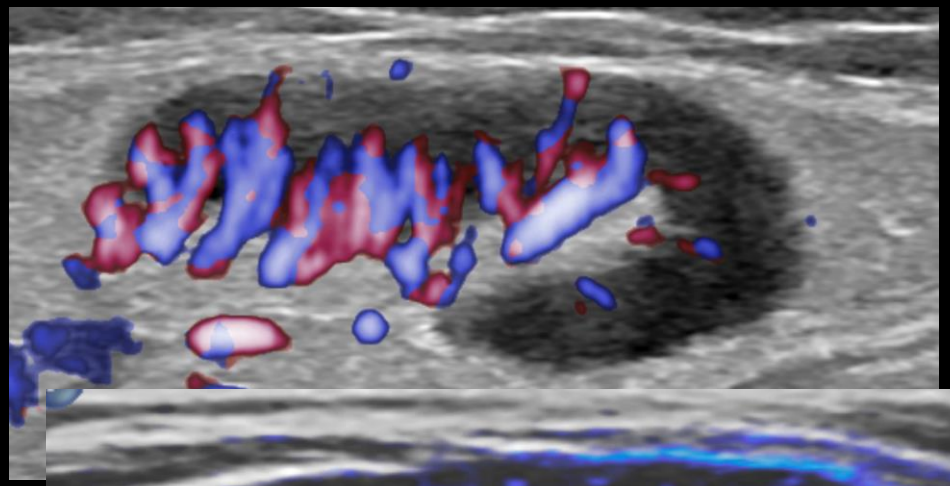

CLL/SLL axila

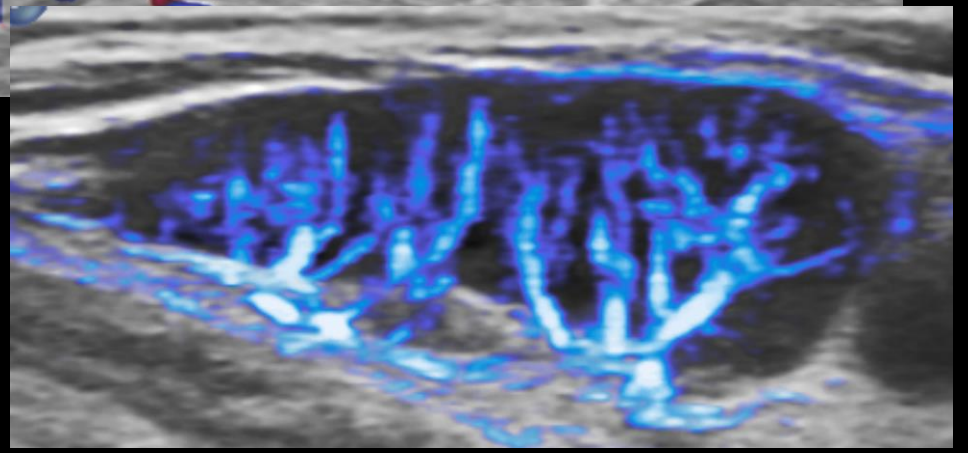


CLL/SLL tříslo

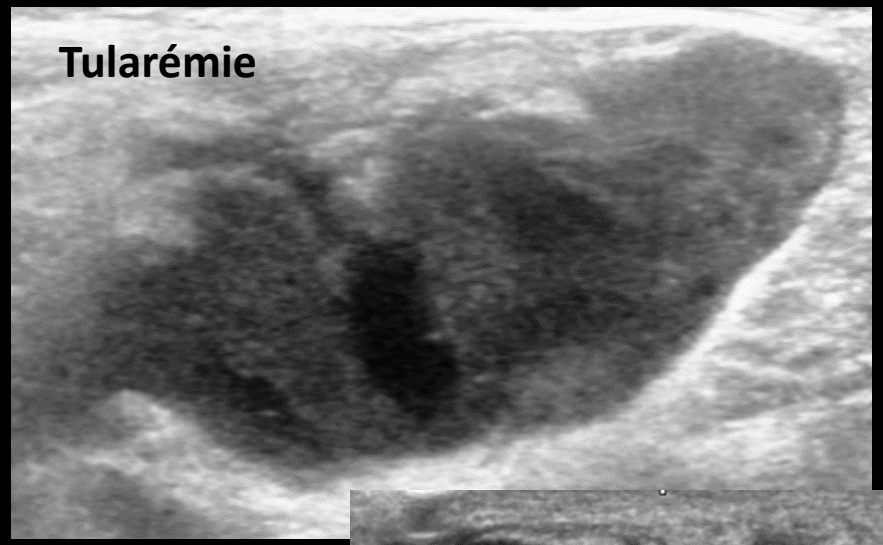


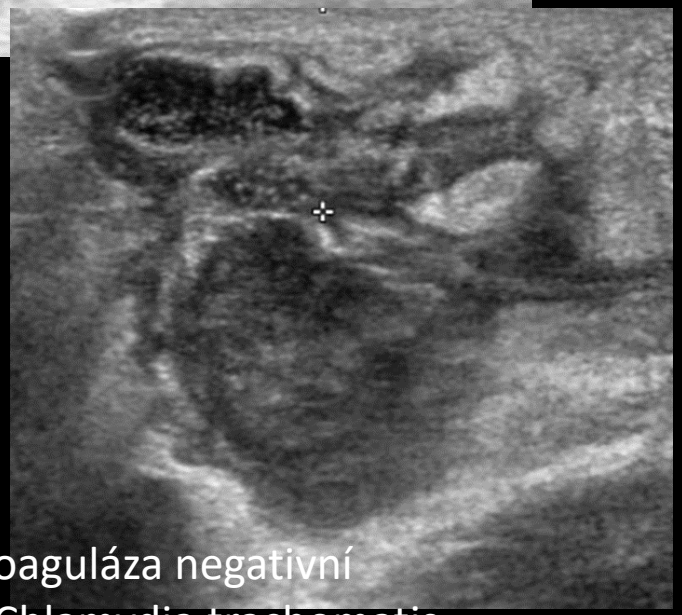
za 3 týdny


AITL


PTCL -NOS

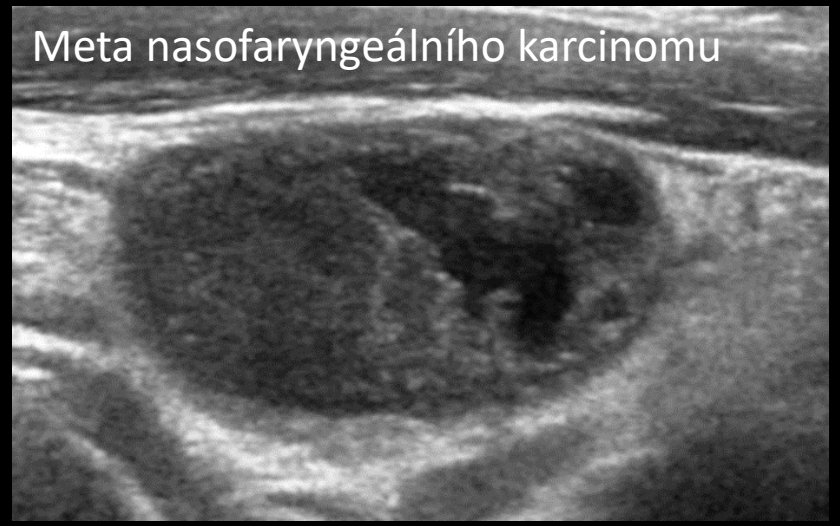
Nekrotické uzliny

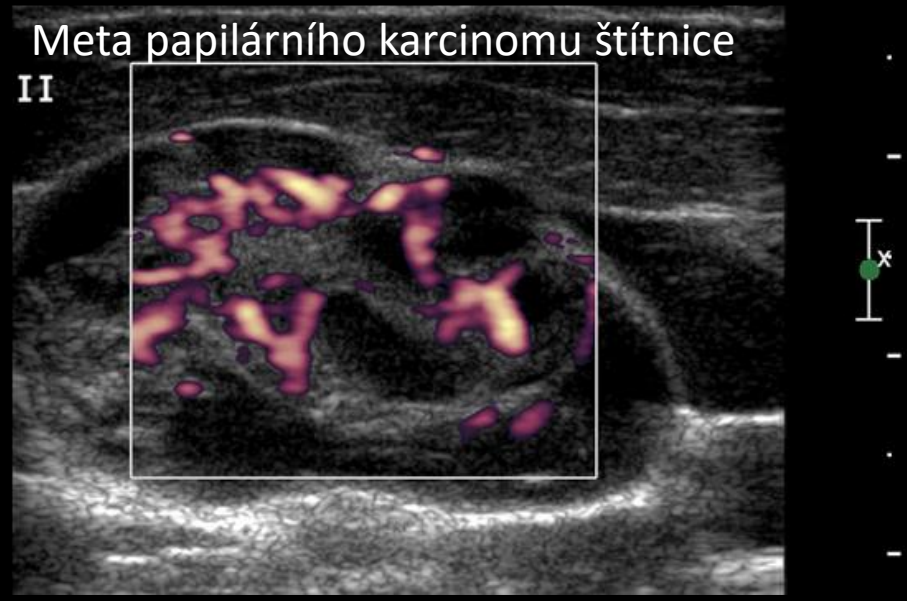




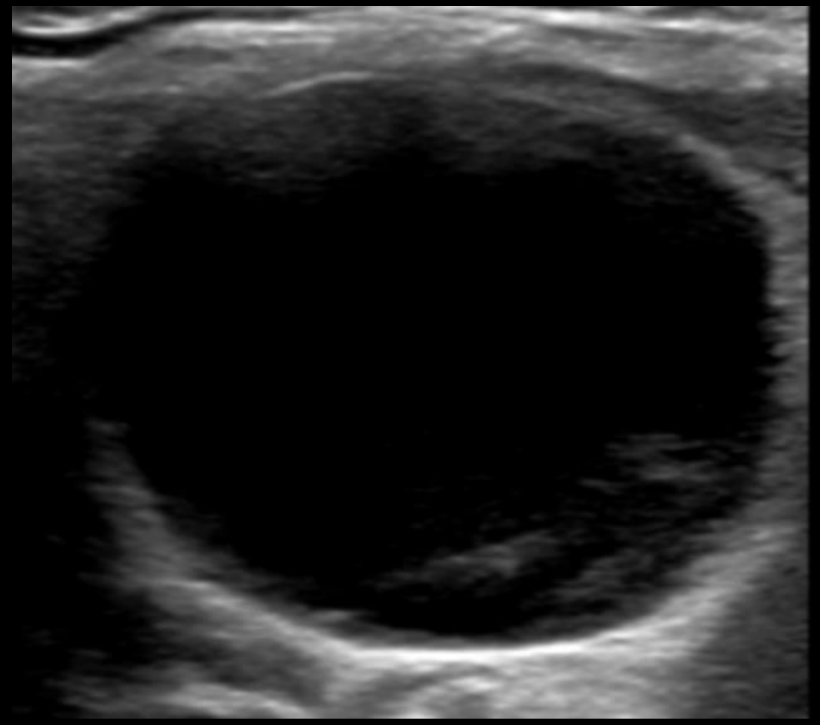
SÉROLOGIE

Staphylococcus koaguláza negativní
dodatečně PCR+ Chlamydia trachomatis

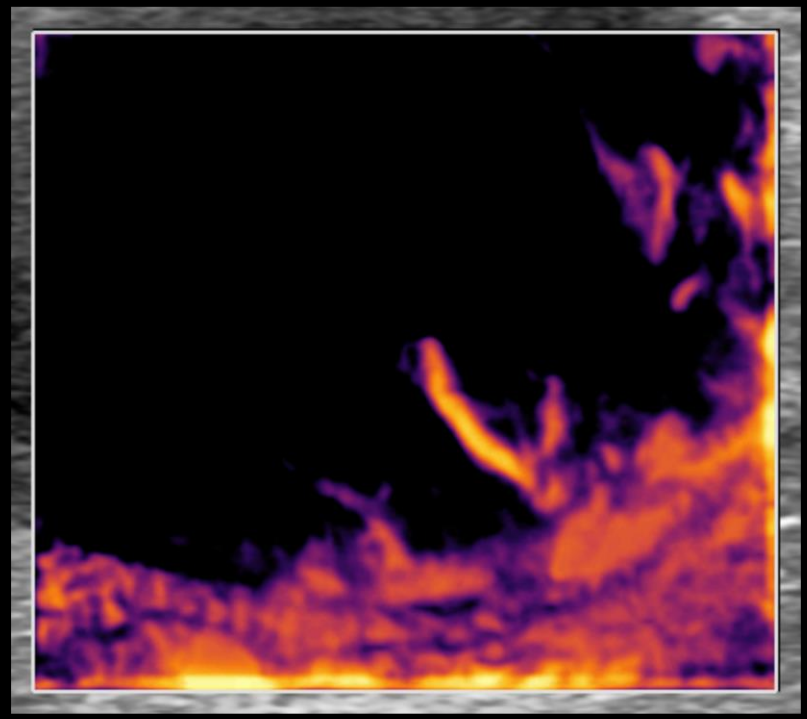


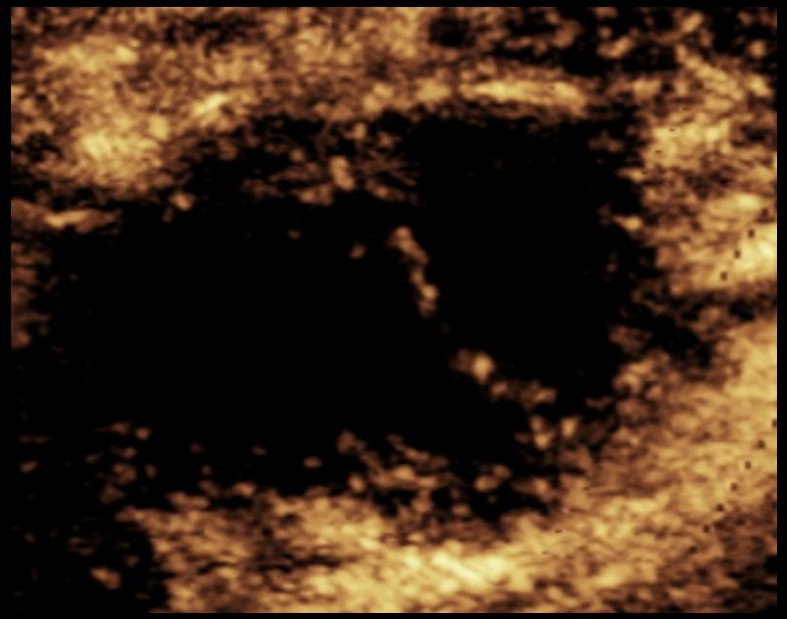


Cystické metastázy



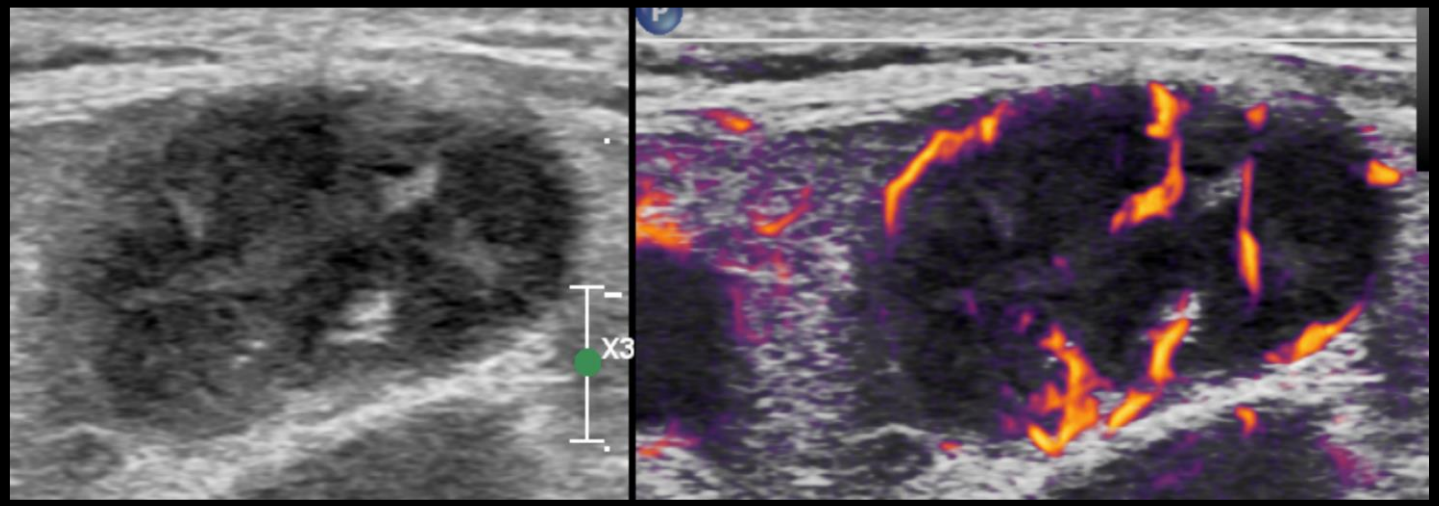
SpinoCa patrové tonsily p16+
HPV infekce

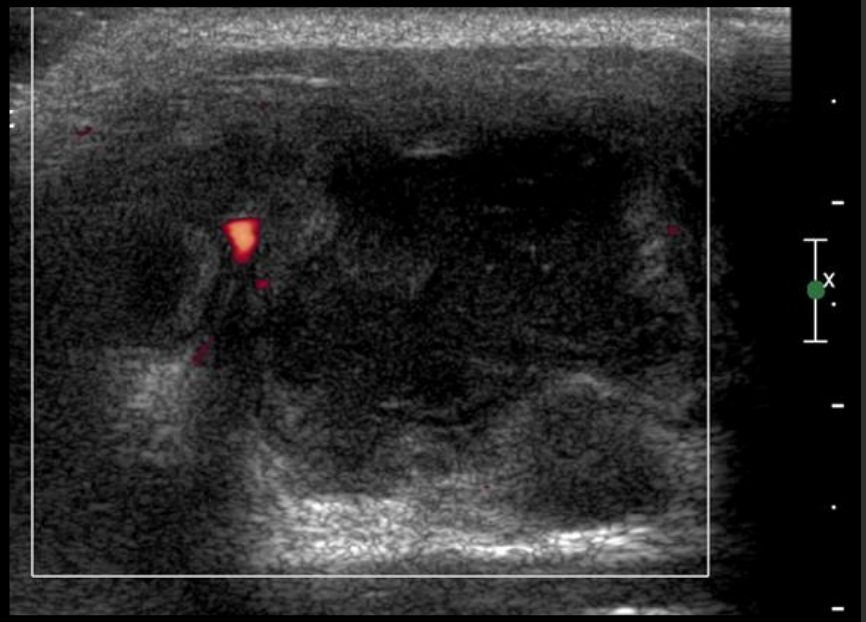


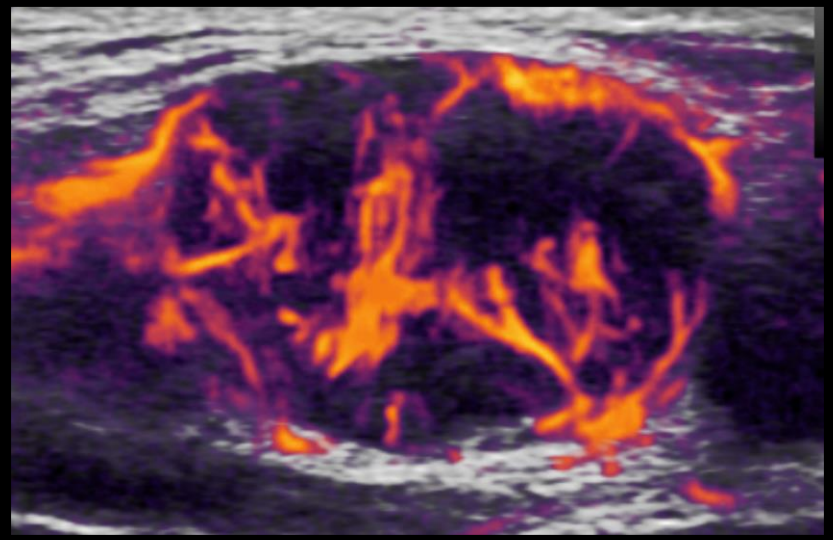


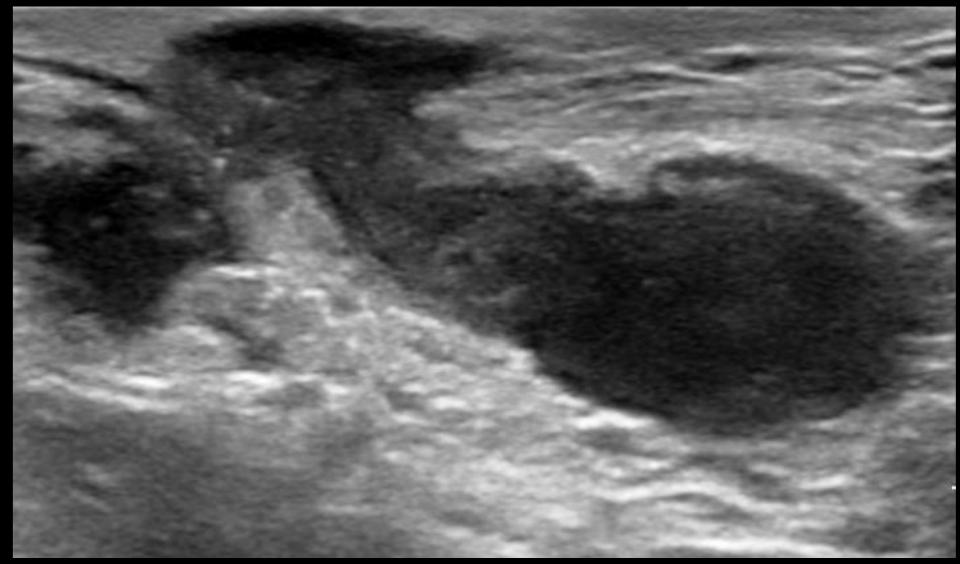
Mouawad F, Rysman B, Russ G, et al. Cystic form of cervical lymphadenopathy. Guidelines of the French Society of Otorhinolaryngology - Head and Neck Surgery (SFORL). Part 1: Diagnostic procedures for lymphadenopathy in case of cervical mass with cystic aspect. Eur Ann Otorhinolaryngol Head Neck Dis. 2019 ;136(6):489-496.

TBC









Závěr

Co sledovat?

- homogenitu a šíři korové vrstvy
- přítomnost nekróz/cystických okrsků
- typ vaskularizace
- ohraničení uzliny + změny okolí

Známky malignity

- Nehomogenní korová vrstva
- Retikulární kresba
- Přítomnost nekróz, cystických okrsků
- Neostré ohraničení uzliny bez průvodní periadenitidy
- Neovaskularizace
- CEUS – nehomogenní sycení, wash-out
- Snížený LT index
- Fokální rozšíření korové vrstvy

Děkuji za pozornost