Manejo das lesões vasculares da região cervical

Amauri Rocha

LESÕES VASCULARES DO PESCOÇO

Papiro de Edwin Smith - 5000 anos

Ilíada de Homero - 23 casos - 82% Mortalidade

Ambrósio Paré – 1552 - Ligadura de Carótida e veia jugular interna com sequela neurológica.

Fleming 1700 - Ligadura de Carótida Comum sem sequela neurológica

Sarra Luis, Carbajo Jorge, Da Silva Alejandro, Bitar Julio, Mariotti Marina. Traumatismos penetrantes de cuello. Rev Cubana Cir [Internet]. 2007 Mar [citado 2017 Nov 29] ; 46(1):

LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

ZONA I - 5% a 25%

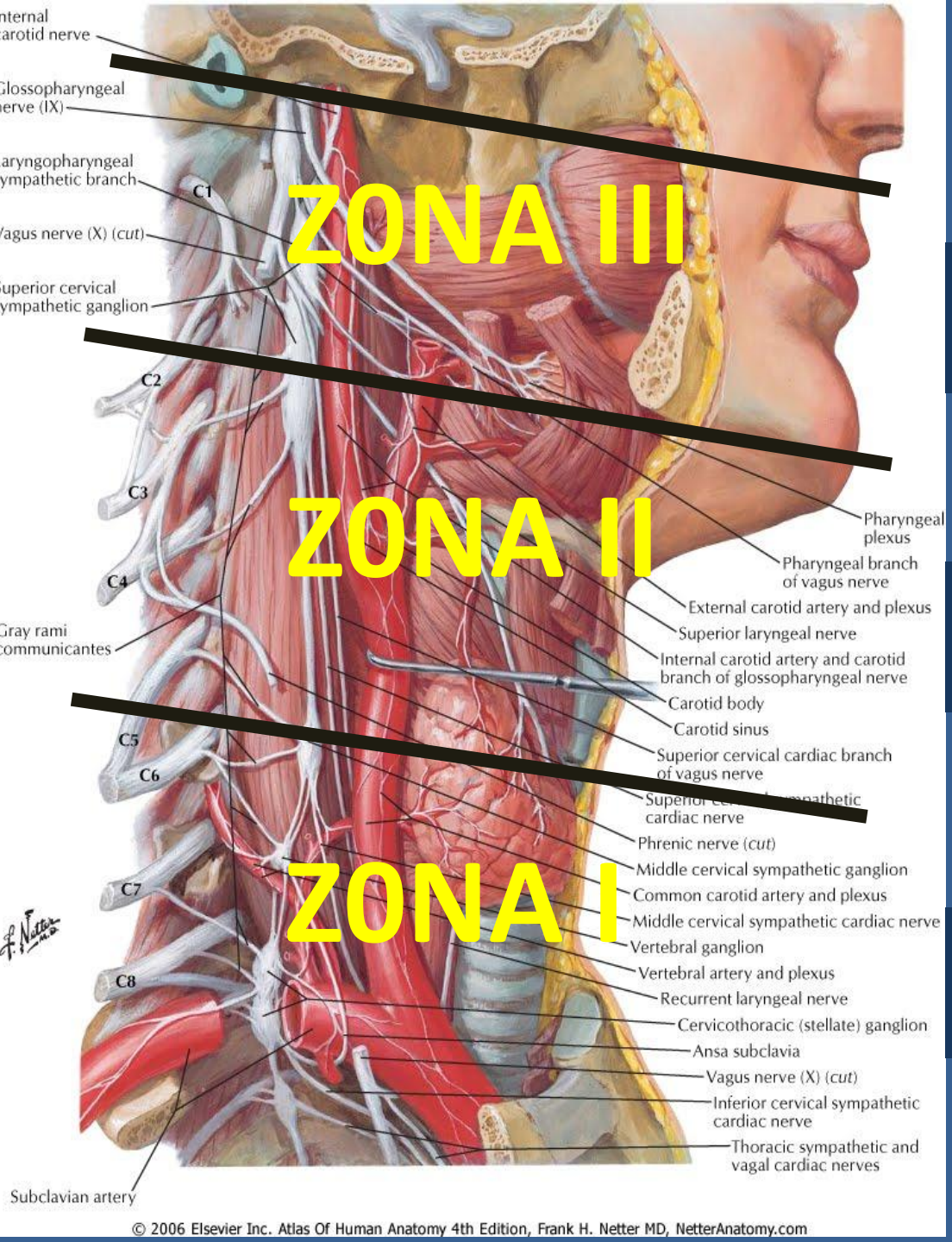
ZONA II - 59% a 82%

ZONA III - 2% a 25%

LESÕES VASCULARES - 21% a 27%

Rao PM, Ivatury RR, Sharma P, Vinzons AT, Nassoura Z, Stahl WM. Cervical vascular injuries: A trauma center experience. Surgery. 1993;114(3):527-31

Irish JC, Hekkenberg R, Gullane PJ, Brown DH, Rotstein LE, Neligan P, et al. Penetrating and blunt neck trauma: 10-year review of a Canadian experience. Can J Surg.1997;40(1):33-8. .



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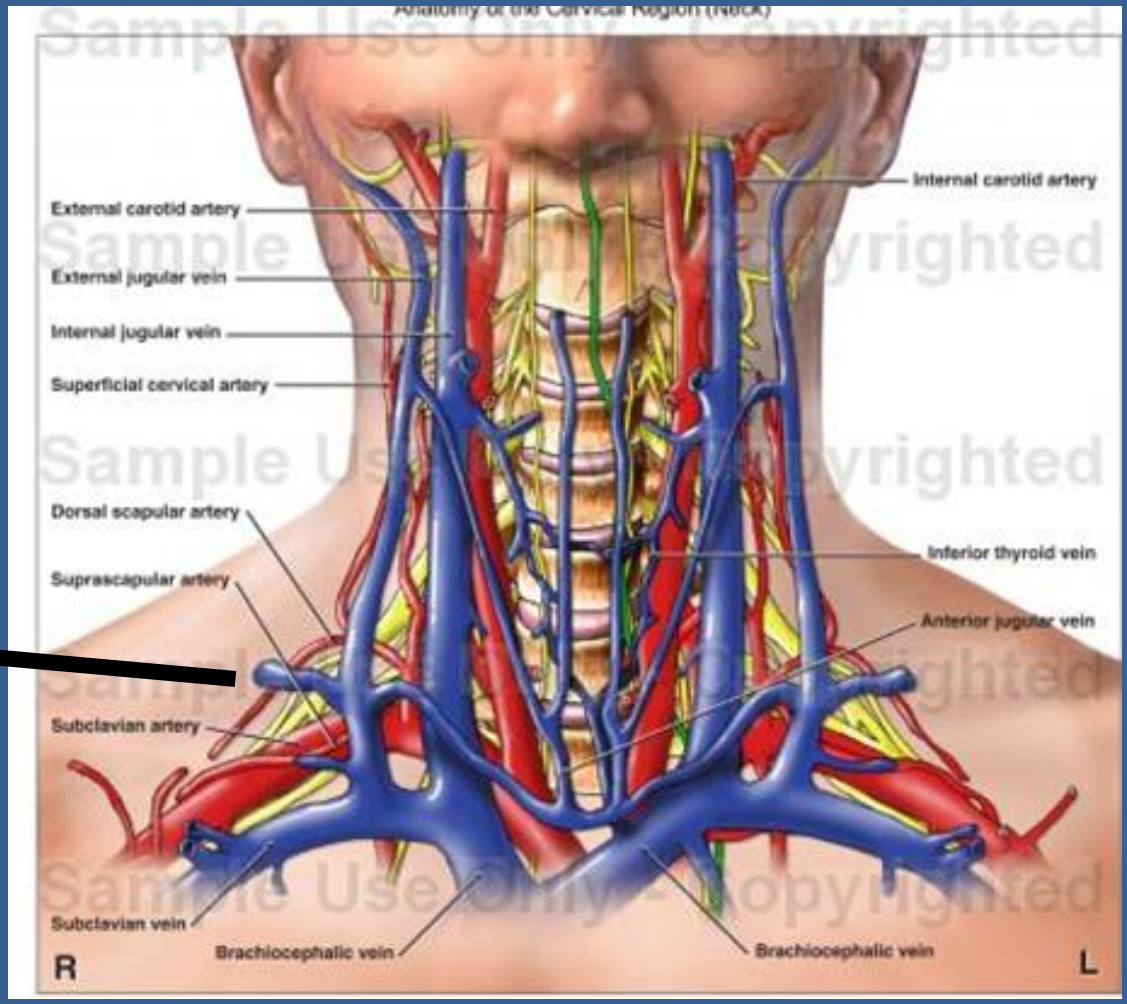
ANATOMIA COMPLEXA
ACESSO DIFÍCIL

ASSOCIAÇÃO LESÃO VISCERAL

ASSOCIAÇÃO LESÃO TORÁCICA

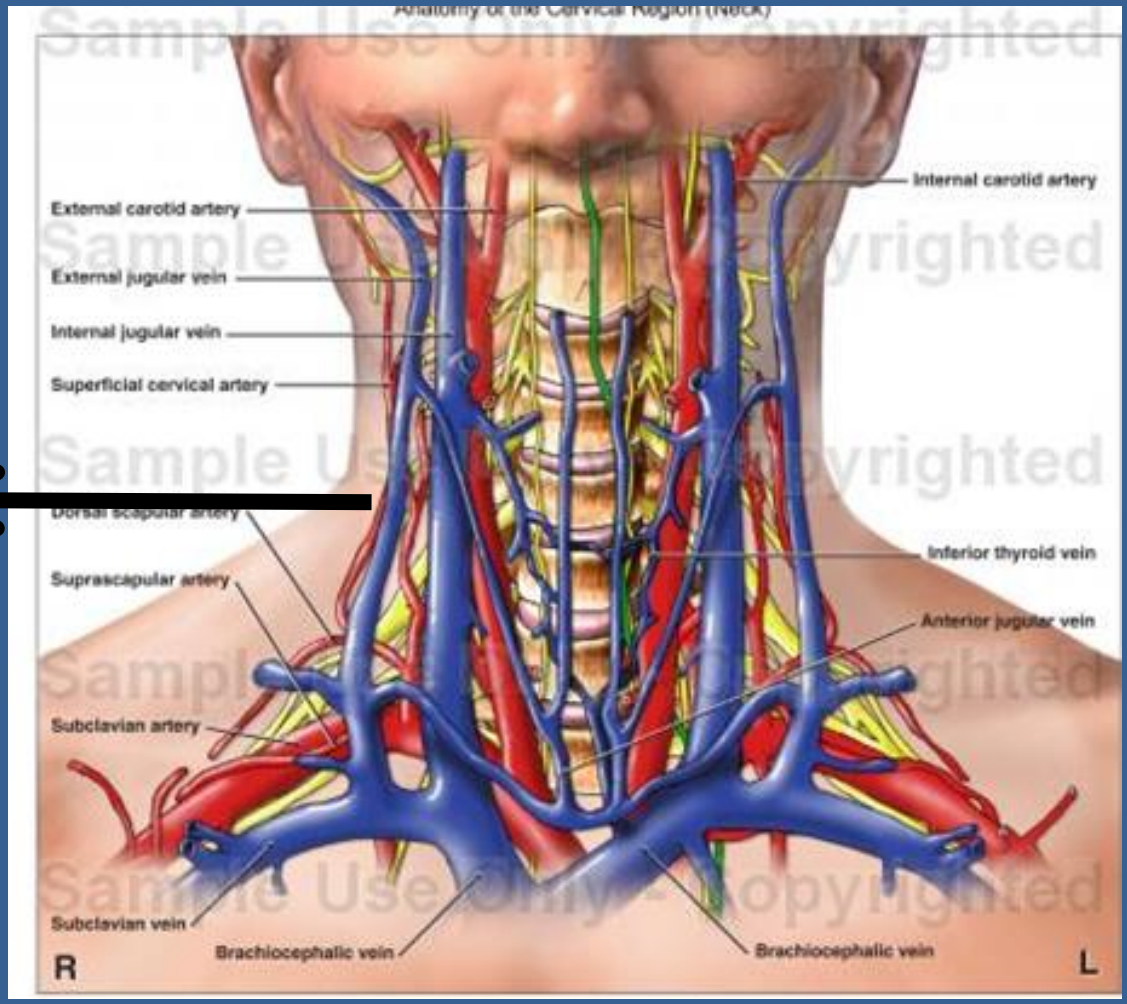
LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

Vasos Subclávios
Artéria Braquicefálica
Artéria carótidas Comuns
Vasos Vertebrais



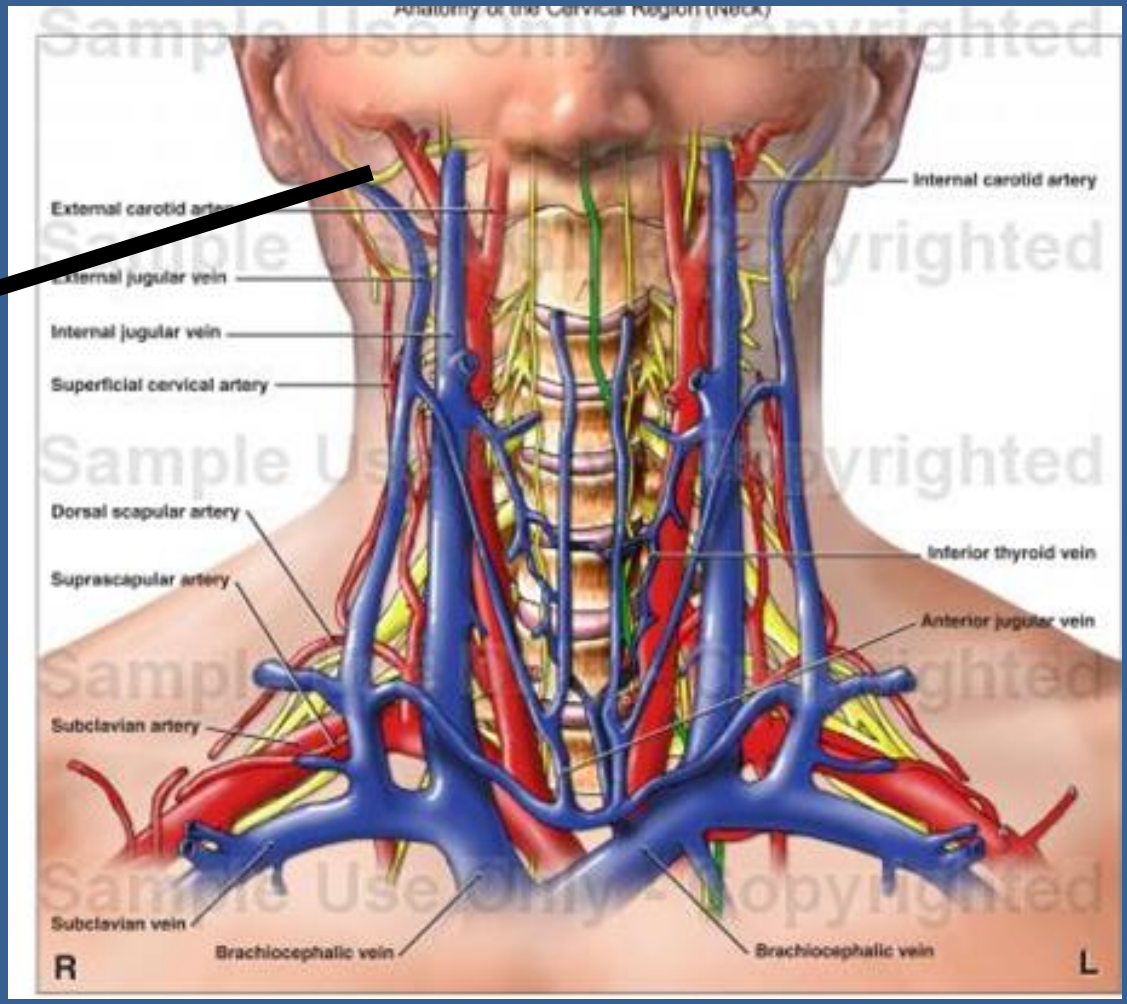
LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

Artéria Carótida Comum
Veia Jugular Interna
Vasos Vertebrais



LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

Artéria Carótida Interna
Artéria Carótida Externa
Veia Jugular Interna



LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

CONDUTA

TRATAMENTO CIRÚRGICO IMEDIATO

Pacientes instáveis hemodinamicamente
Hematoma em expansão
Lesões com Sangramentos
Corpo estranho no pescoço

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LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

TRATAMENTO

PACIENTE ASSINTOMÁTICO

??????????

LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

DIAGNÓSTICO

CINEMÁTICA DO TRAUMA
EXAME FÍSICO SERIADO

J Am Coll Surg. 1994 Dec;179(6):657-62.

Physical examination alone is safe and accurate for evaluation of vascular injuries **in** penetrating **Zone II** neck **trauma.**

Atteberry LR[1], Dennis JW, Menawat SS, Frykberg ER.
Department of Surgery, University of Florida Health Science Center, Jacksonville 32209.

CONCLUSIONS:

Patients with Zone II penetrating neck injuries and no definite signs of vascular injury can be **safely and accurately managed on the basis of physical examination alone.** Arteriography or ultrasonography are not needed to identify vascular injuries.

LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

DIAGNÓSTICO

CINEMÁTICA DO TRAUMA
EXAME FÍSICO SERIADO

Feliciano DV. **Penetrating Cervical Trauma. "Current Concepts in Penetrating Trauma", IATSIC Symposium, International Surgical Society, Helsinki, Finland, World J Surg. August 25-29, 2013.** 2015 Jun;39(6):1363-72. doi: 10.1007/s00268-014-2919-y.

LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

DIAGNÓSTICO

Gonzalez RP, Falimirski M, Holevar MR, Turk B. **Penetrating zone II neck injury: does dynamic computed tomographic scan contribute to the diagnostic sensitivity of physical examination for surgically significant injury? A prospective blinded study.**
J Trauma. 2003 Jan;54(1):61-4; discussion 64-5.

Conclusion

Dynamic CT scan contributes minimally to the sensitivity of physical examination in the diagnosis of surgically significant penetrating zone II neck injury.

CT scan has greater sensitivity than physical examination for the diagnosis of jugular venous injuries

LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

DIAGNÓSTICO

ANGIO-TOMOGRAFIA

Scand J Surg. 2017 Sep 1:1457496917731187. doi: 10.1177/1457496917731187.
Computed Tomography Angiography is the Definitive Vascular Imaging Modality for Penetrating Neck Injury: A South African Experience.
Madsen AS[1], Kong VY[1], Oosthuizen GV[1], Bruce JL[1], Laing GL[1], Clarke DL[1].

Feliciano DV. **Penetrating Cervical Trauma. "Current Concepts in Penetrating Trauma", IATSIC Symposium, International Surgical Society, Helsinki, Finland, World J Surg. August 25-29, 2013.** 2015 Jun;39(6):1363-72. doi: 10.1007/s00268-014-2919-y.

Conclusion: In stable patients with a variety of modest/moderate symptoms or signs possibly related to an injury to the carotid artery, **CT-arteriography has become the diagnostic modality of choice.**

LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

DIAGNÓSTICO

ULTRASSONOGRAFIA CERVICAL

Crit Ultrasound J. 2017 Dec;9(1):5. doi: 10.1186/s13089-017-0060-5. Epub 2017 Feb 16.

Point-of-care ultrasound and Doppler ultrasound evaluation of vascular injuries in penetrating and blunt trauma.

Montorfano MA[1], Pla F[2], Vera L[2], Cardillo O[2], Nigra SG[3], Montorfano LM[2].

CONCLUSIONS:

Point-of-care ultrasound and Color flow Duplex Doppler examination are increasingly used in the decision making process of trauma-related vascular injuries.

LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

CONDUTA

RECONSTRUÇÃO SEMPRE QUE POSSÍVEL

<u>LIGADURA</u>

Pacientes comatosos sem fluxo anterógrado
Sangramento incontrolável
Dificuldade técnica

LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

CONDUTA

Craniomaxillofac Trauma Reconstr.
2014 Sep;7(3):175-89. doi: 10.1055/s-0034-1372521.

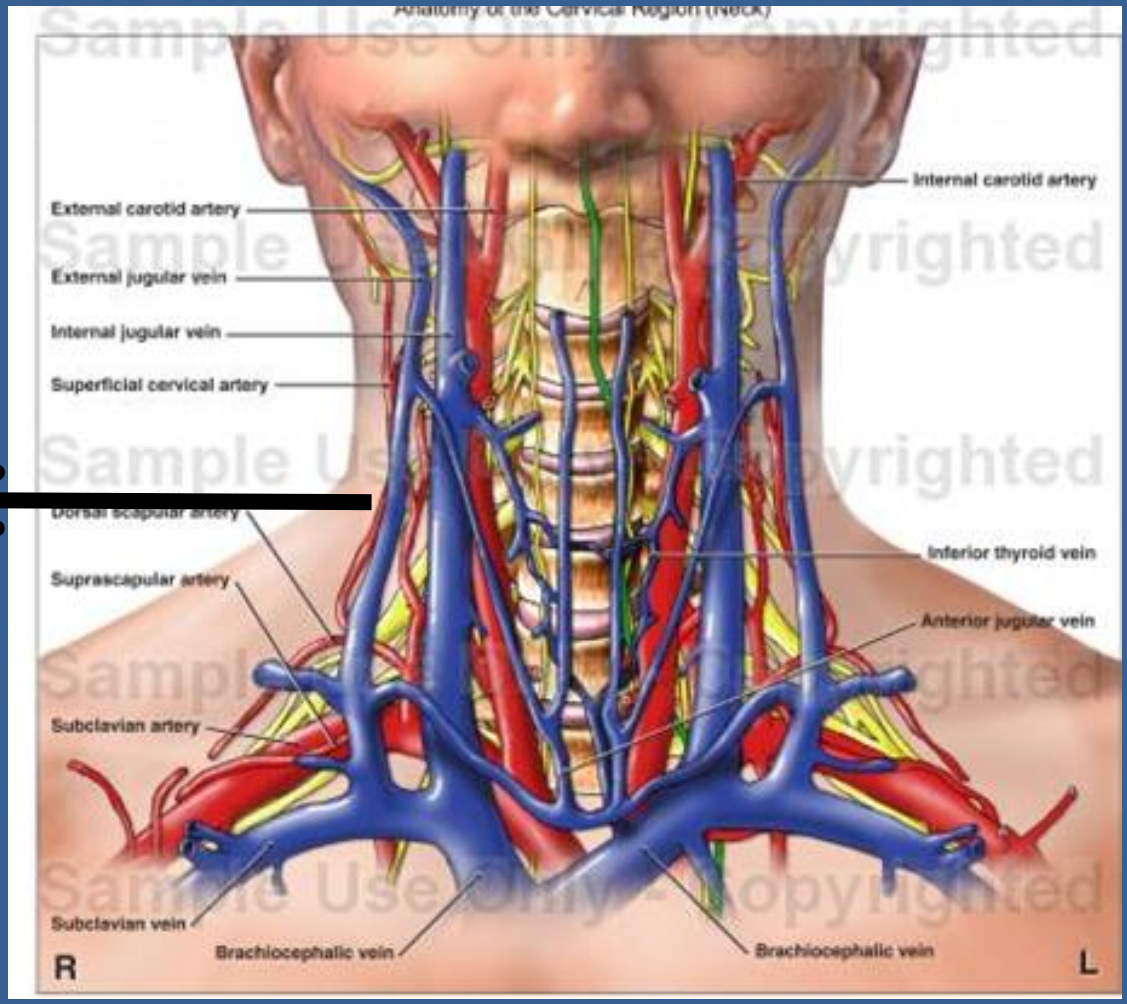
Management of carotid artery trauma.

Lee TS[1], Ducic Y[2], Gordin E[3], Stroman D[4].

Nonetheless, open surgical approaches are still needed for the treatment of penetrating extracranial carotid injuries

LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

Artéria Carótida Comum
Veia Jugular Interna
Vasos Vertebrais



LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

RECONSTRUÇÃO x LIGADURA

Tratamento do trauma penetrante das artérias carótidas no Hospital João XXIII: Comparação entre ligadura e reconstrução arterial
Daniel Mendes Pinto, Leonardo Ghizoni Bez, Ricardo Costa-Val
Sérgio Figueiredo Campos Christo, Eduardo Vergara Miguel
J Vasc Br 2004;3(3):247-52

Nossos dados mostram que a reconstrução das carótidas deve ser tentada nas lesões penetrantes, tanto em pacientes assintomáticos quanto naqueles que já se apresentam com déficit neurológico, devido à menor incidência de complicações e à possibilidade de melhora dos sintomas neurológicos

A ligadura arterial é uma opção válida para situações com **dificuldade de controle do coto distal** da artéria carótida interna e naqueles com sangramento volumoso

LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

TRATAMENTO ENDOVASCULAR

J Trauma. 2008 Dec;65(6):1561-6. doi: 10.1097/TA.0b013e31817fd954.

Endovascular stenting for the treatment of traumatic internal carotid injuries: expanding experience.

DuBose J[1], Recinos G, Teixeira PG, Inaba K, Demetriades D.

CONCLUSION:

Endovascular treatment of traumatic internal carotid artery injury continues to evolve. Early results are encouraging, but experience with this modality and data on late follow-up are still very limited. **A large prospective randomized trial is warranted to further define the role of this treatment modality in the setting of trauma.**

LESÕES VASCULARES DO PESCOÇO

ARTÉRIA CARÓTIDA INTERNA

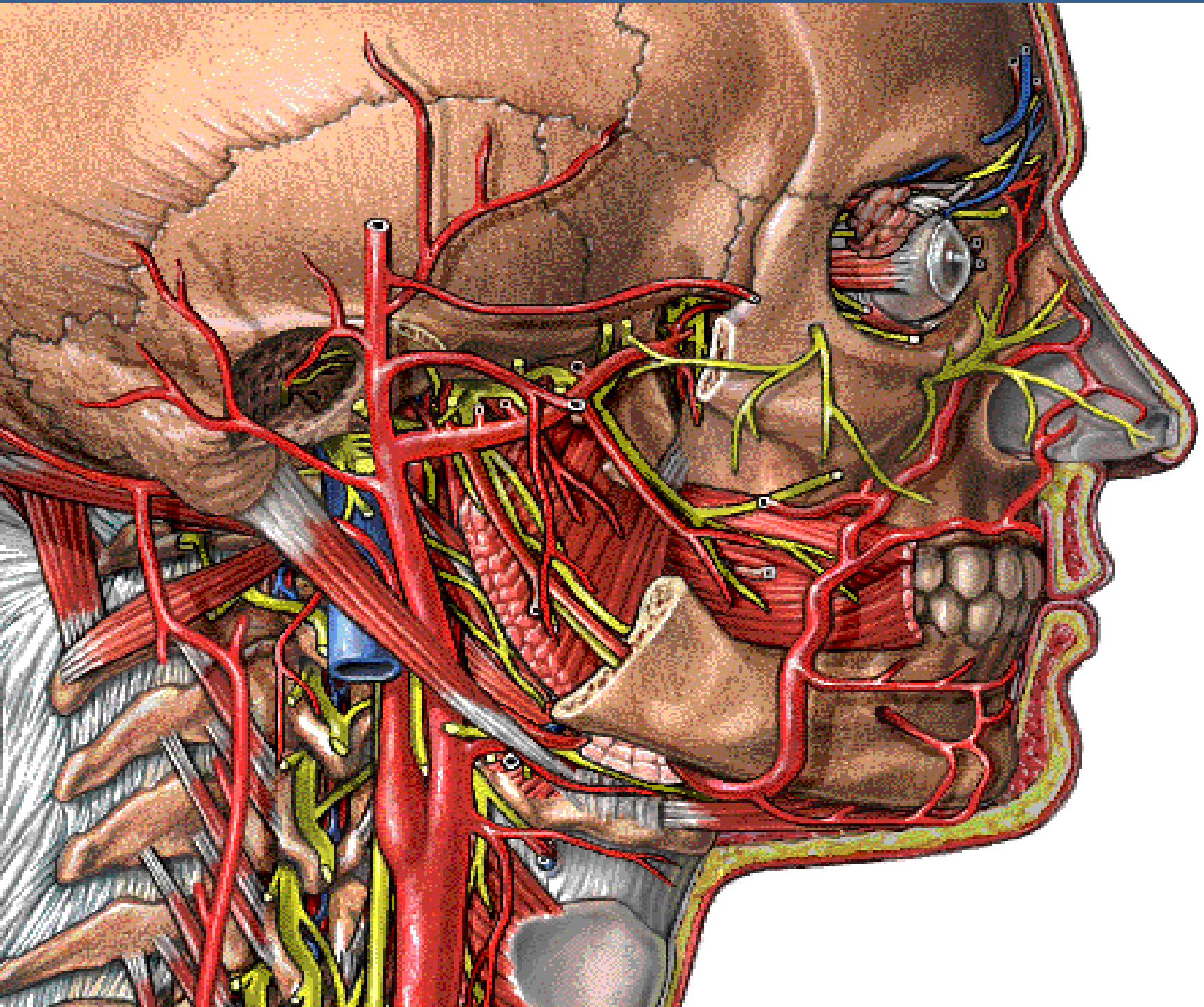
AJNR Am J Neuroradiol. 2013 Jun-Jul;34(6):1219-26. doi: 10.3174/ajnr.A3337. Epub 2012 Dec 6.

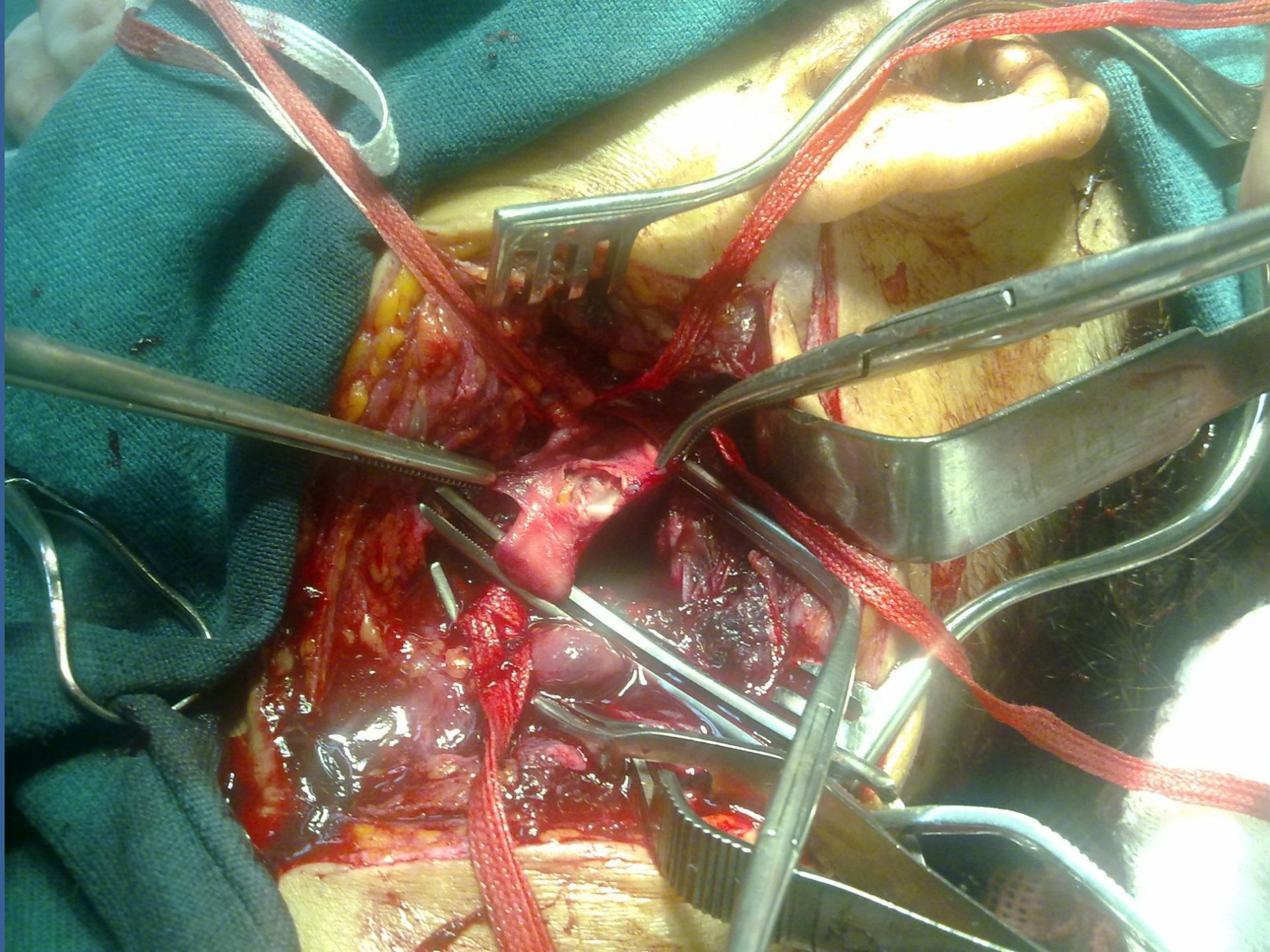
Endovascular repair of traumatic cervical internal carotid artery injuries: a safe and effective treatment option.

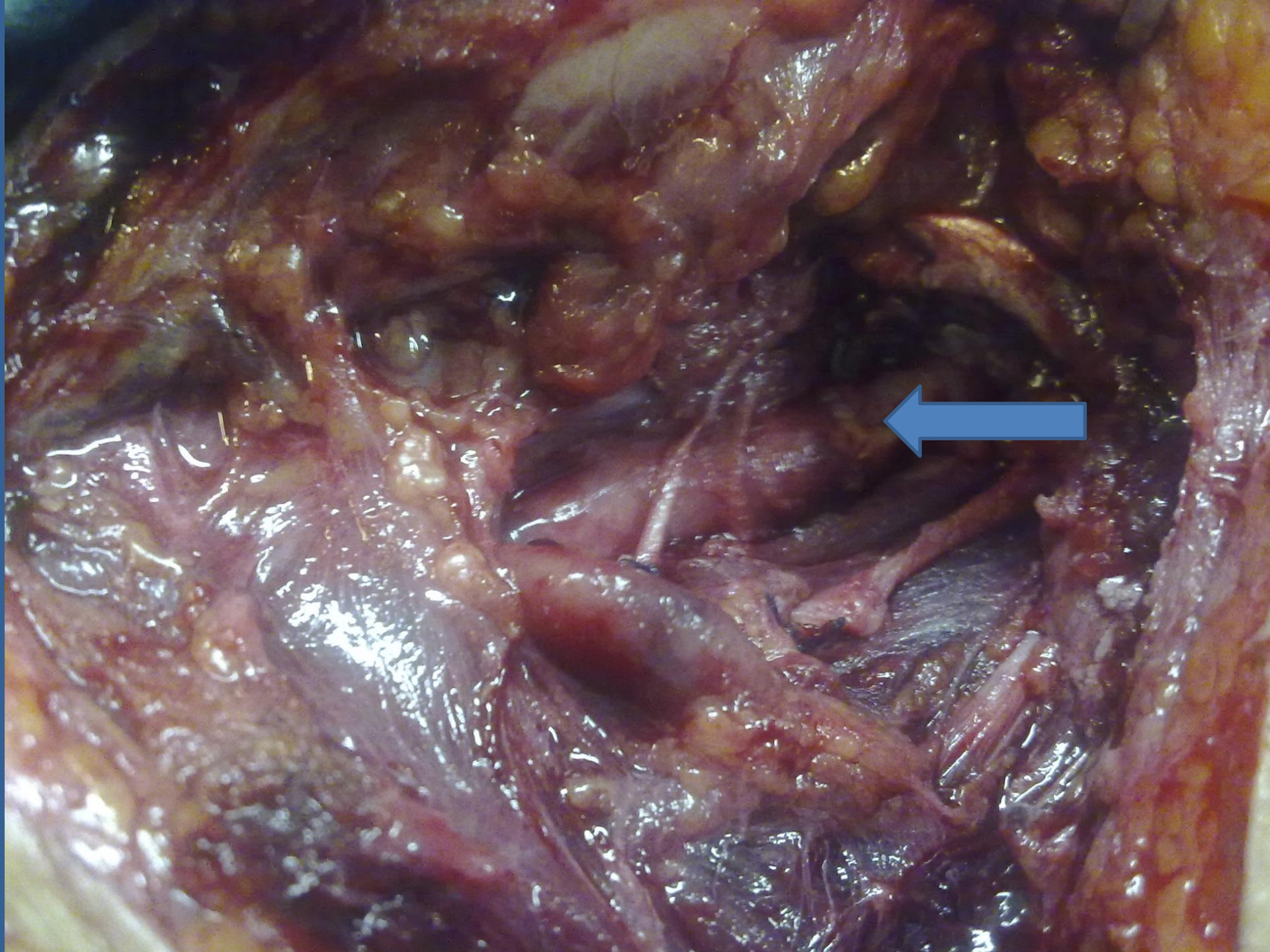
Seth R[1], Obuchowski AM, Zoarski GH.

CONCLUSION

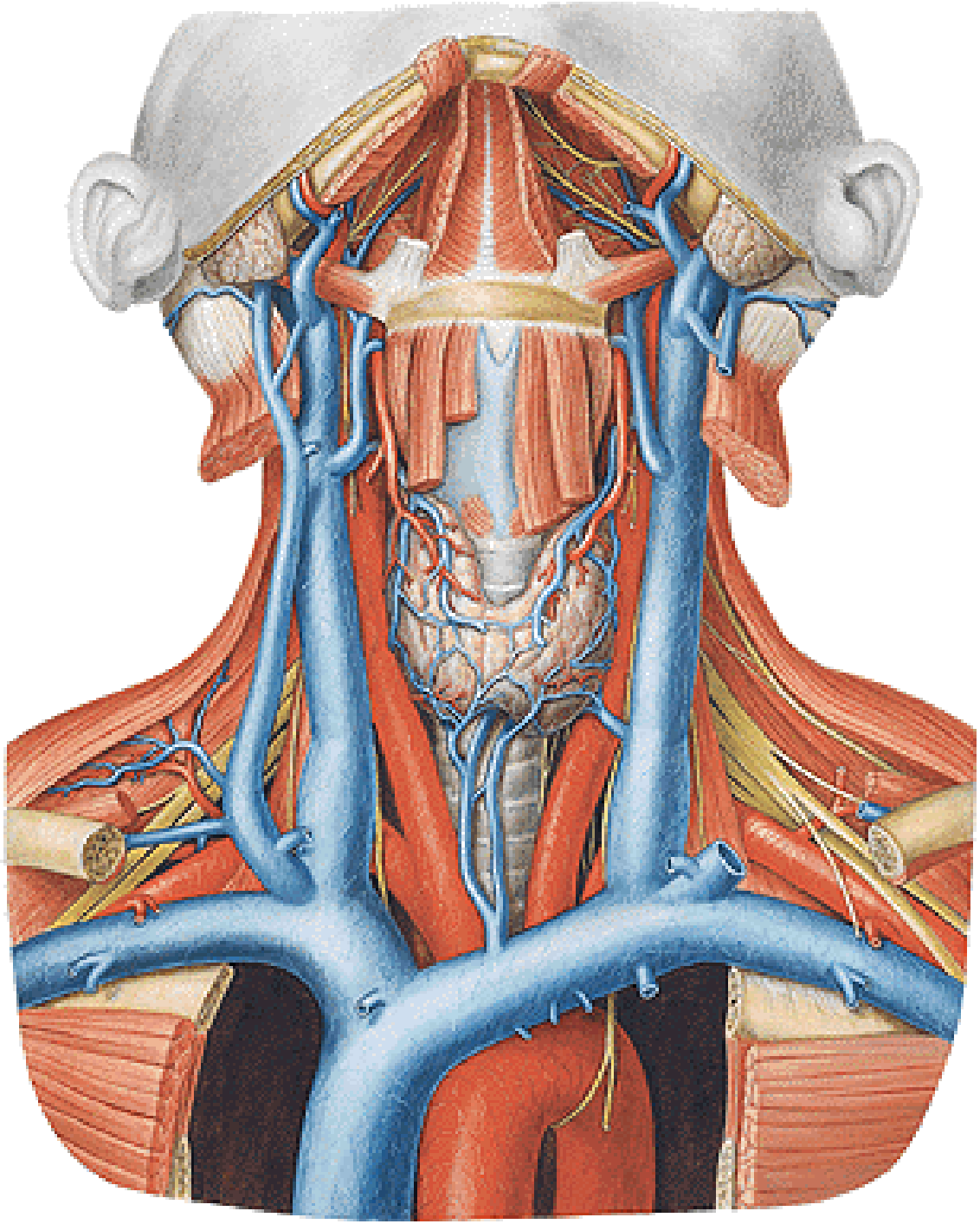
Endovascular therapy was a safe and effective option for restoring luminal caliber and eliminating flow within pseudoaneurysms related to traumatic injuries. Imaging follow-up of all cervicocerebral vascular injuries is especially important within the first 45 days, a critical interval during which most lesions demonstrate healing or progression.

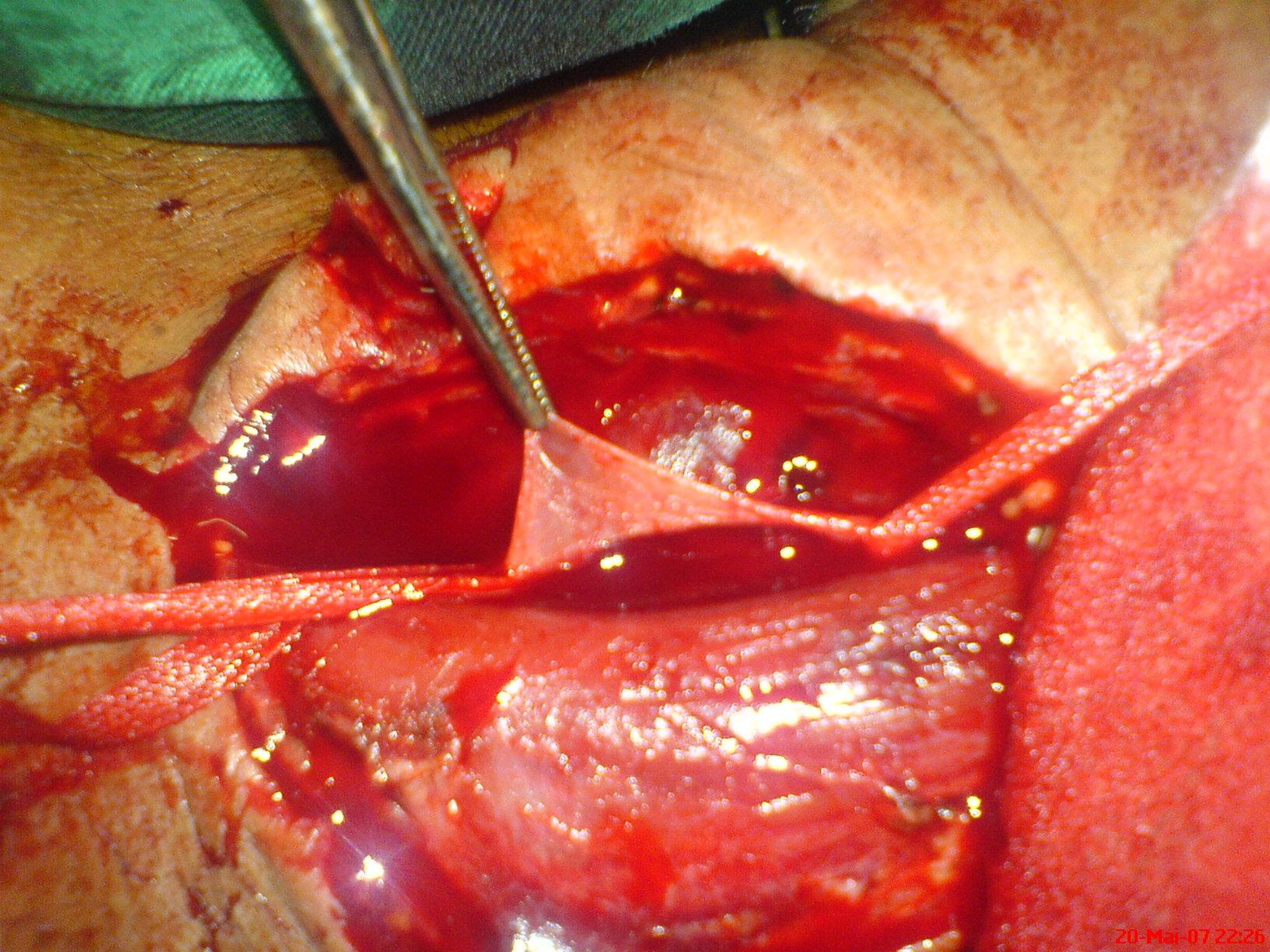






SISTEMA VENOSO JUGULAR

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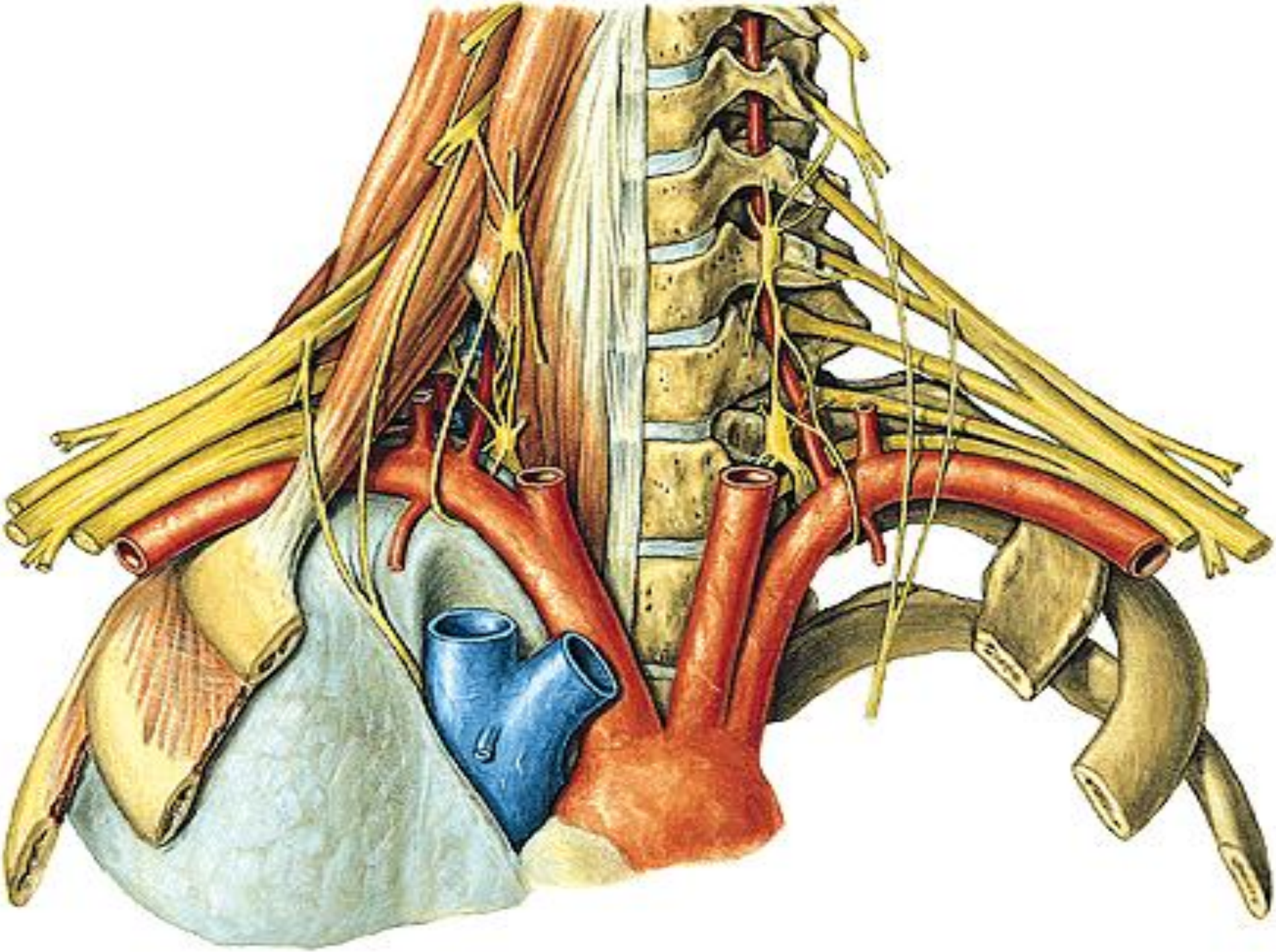


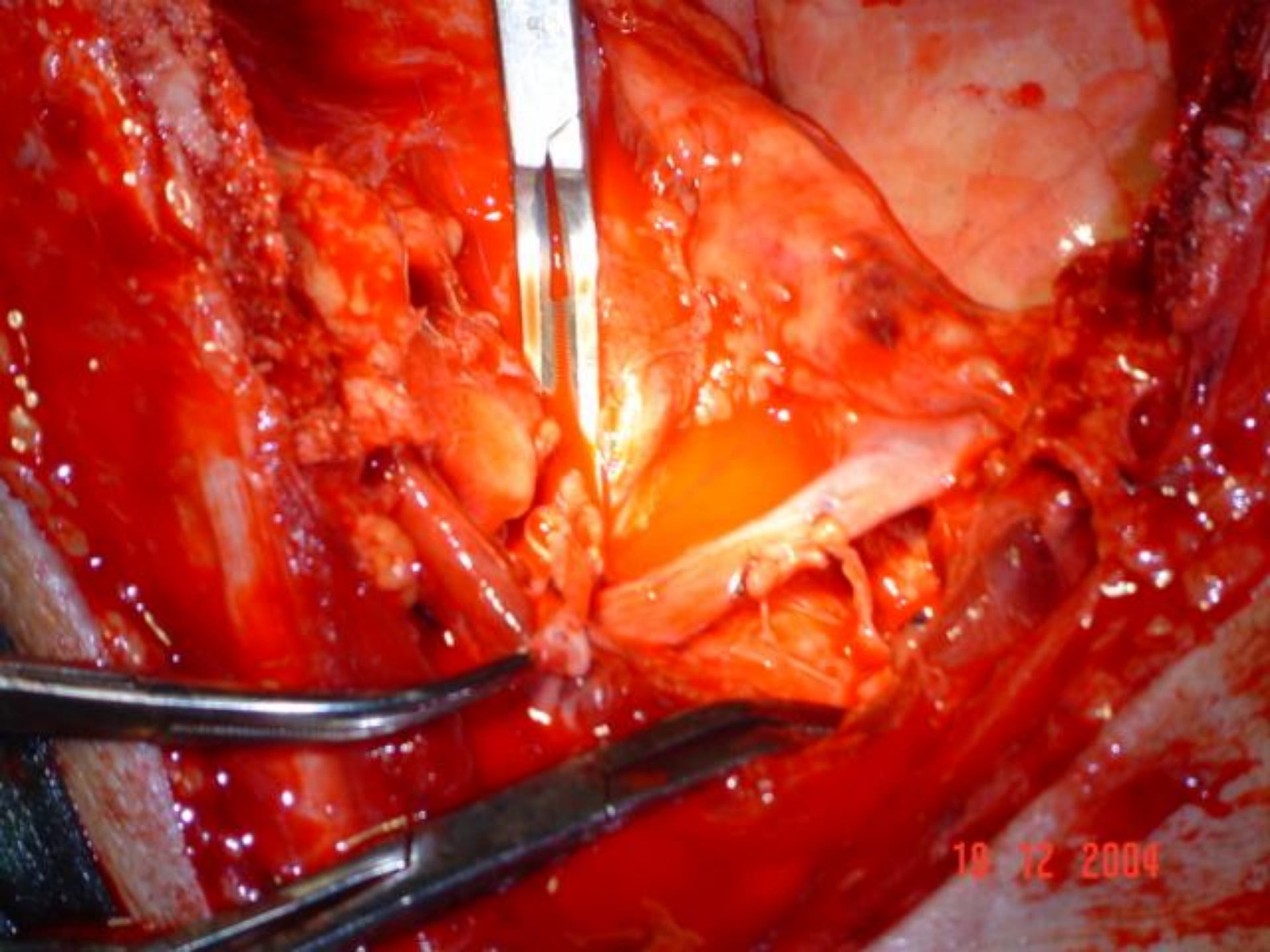
LESÕES VASCULARES DO PESCOÇO

TRONCO ARTERIAL BRAQUICEFÁLICO (A INOMINADA)
ARTÉRIA SUBCLÁVIA

Johnston RH Jr., Wall MJ Jr., Mattox KL.
Innominate artery trauma: a thirty-year experience.
J Vasc Surg. 1993 Jan;17(1):134-9; discussion 139-40.

These patients can undergo revascularization with simple vascular surgical techniques

Synthetic conduits have been used with success and have not required systemic heparinization or complex temporary shunting.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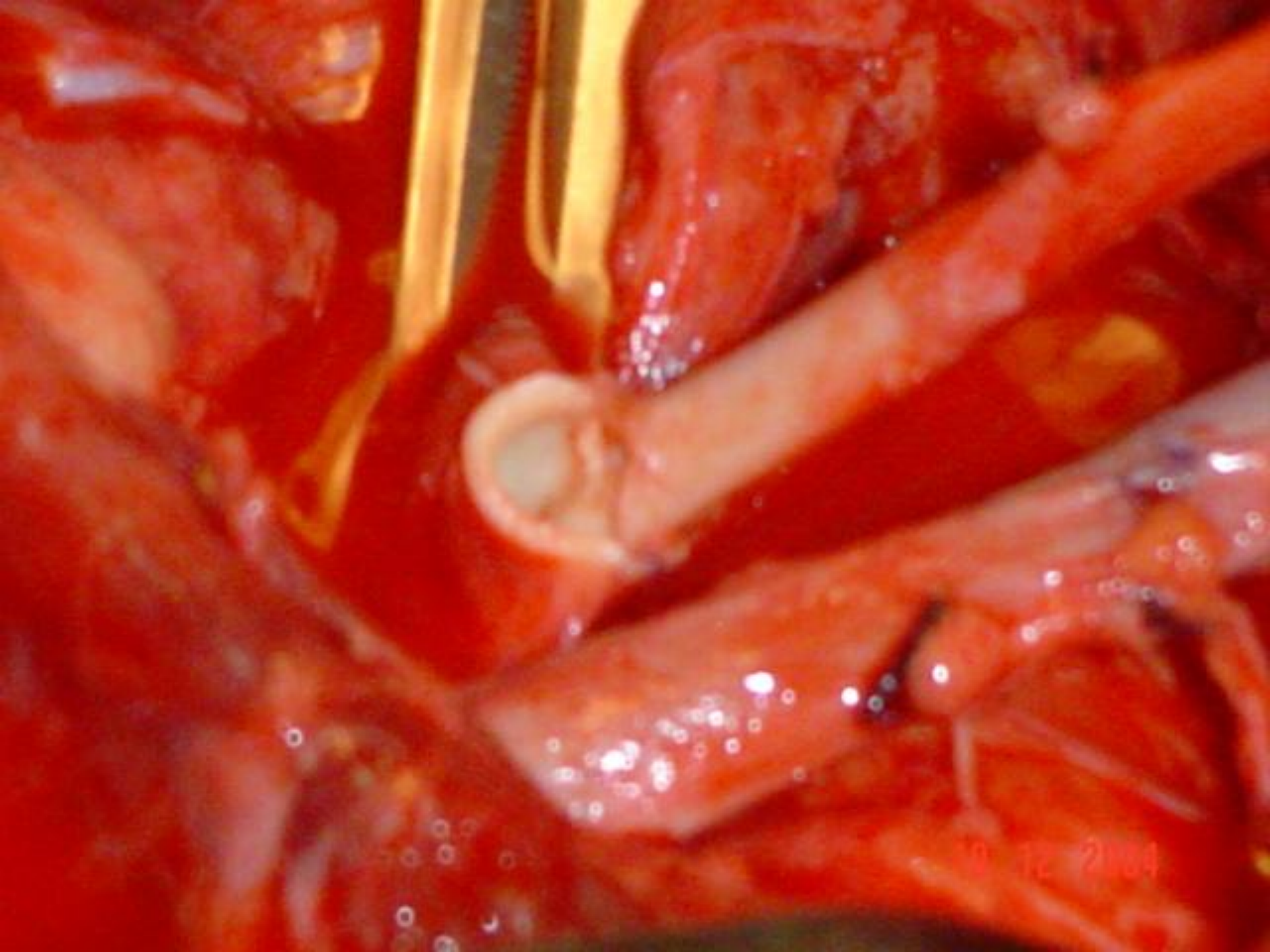
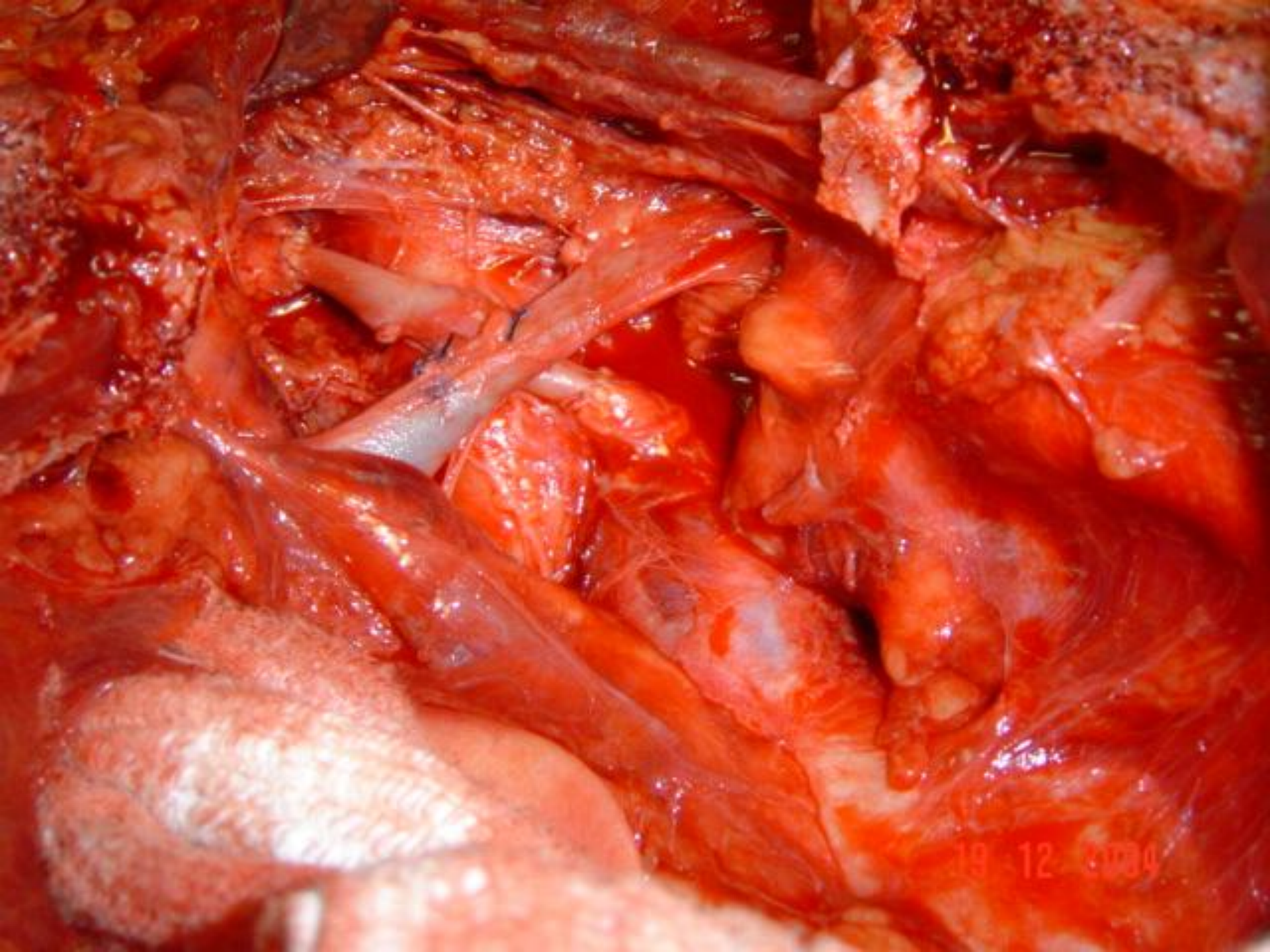




LESÃO VASCULAR DO PESCOÇO
DIAGNÓSTICO E TRATAMENTO

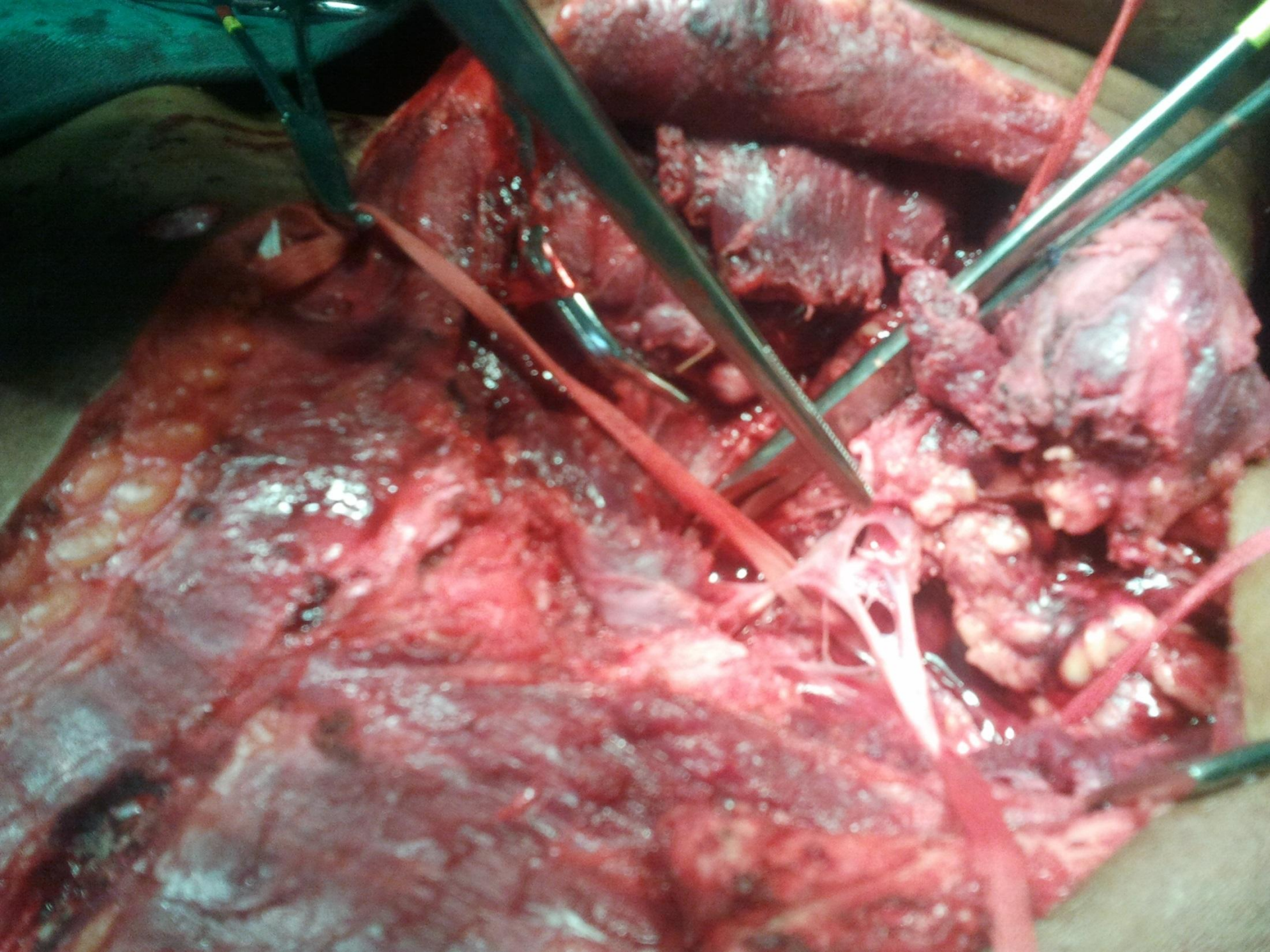
TRATAMENTO ENDOVASCULAR

Injury. 2012 Nov;43(11):1785-92. doi: 10.1016/j.injury.2012.08.028. Epub 2012 Aug 22.

Endovascular management of axillo-subclavian arterial injury:
a review of published experience.

DuBose JJ[1], Rajani R, Gilani R, Arthurs ZA, Morrison JJ, Clouse WD, Rasmussen TE;
Endovascular Skills for Trauma and Resuscitative Surgery Working Group.

Conclusion
Endovascular treatment of traumatic subclavian and axillary artery injuries continues to evolve. Early results are promising, but experience with this modality and data on late follow-up remain limited. Additional multicenter prospective study and capture of data for these patients is warranted to further define the role of this treatment modality in the setting of trauma.

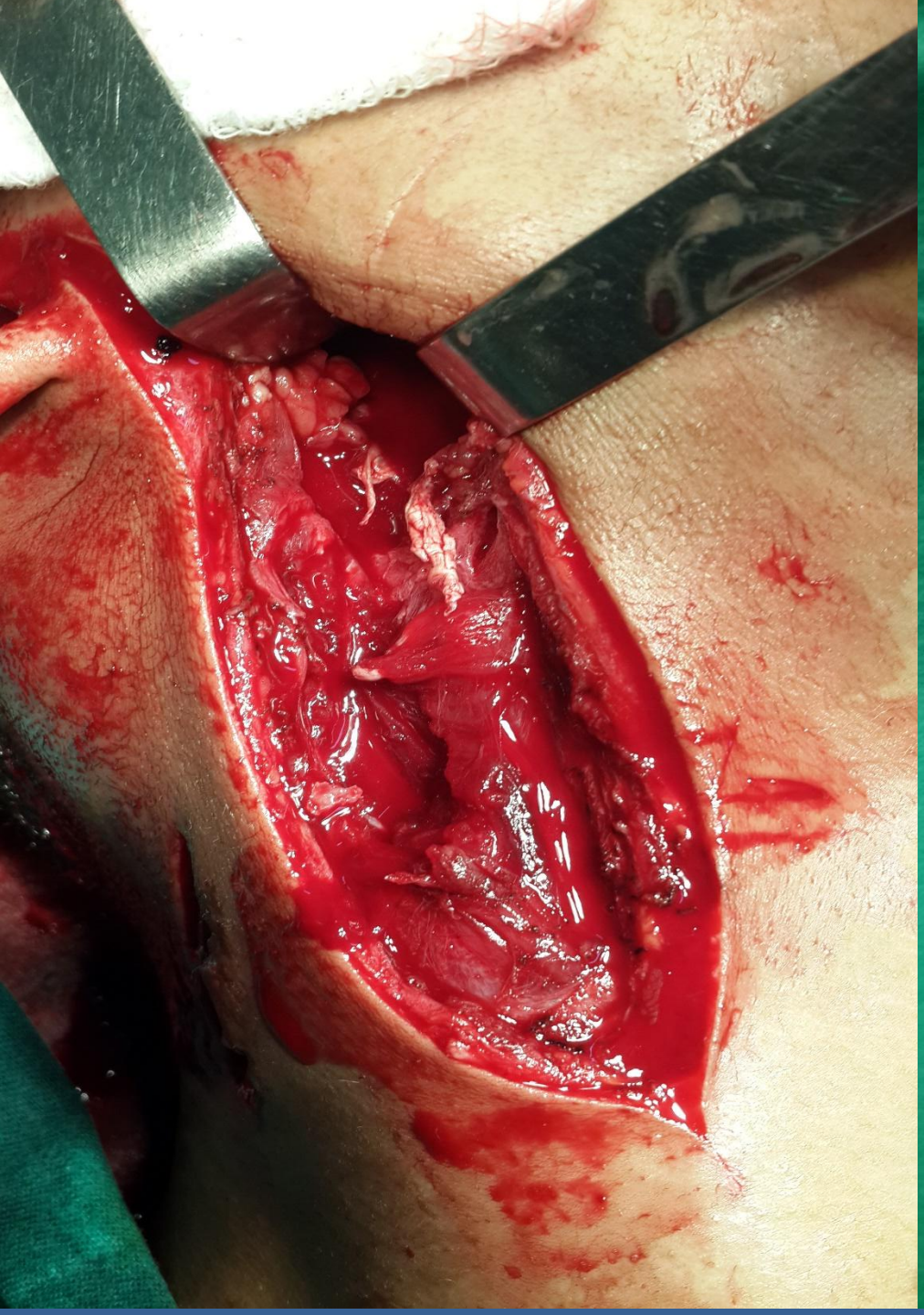


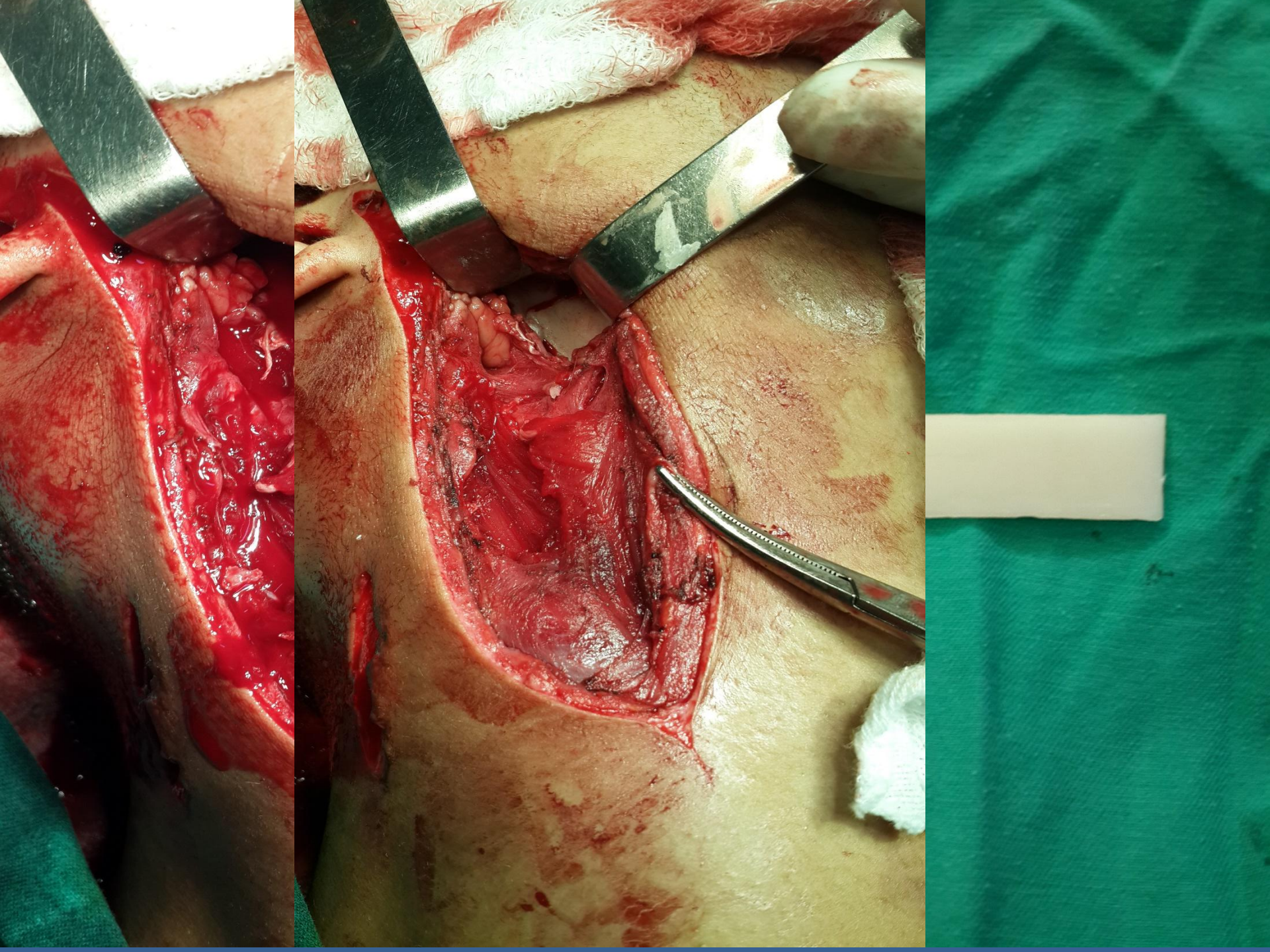
LESÕES VASCULARES DO PESCOÇO

ARTÉRIA VERTEBRAL

Greer LT, Kuehn RB, Gillespie DL, White PW, Bell RS, Armonda RA, Fox CJ.
J Trauma Acute Care Surg.2013 Mar;74(3):818-24. doi: 10.1097/TA.0b013e31827a08a8.
Contemporary management of combat-related vertebral artery injuries.

VAIs are infrequent in modern combat operations, occurring in only 3% of casualties experiencing arterial injuries and are often incidentally discovered during the delayed secondary evaluation of penetrating face and neck injuries at higher echelons of care. One should have a high index of suspicious for a VAI in a casualty with concurrent cervical spine fractures. Endovascular therapies using coils and covered stents have expanded the management options and simplified the treatment of combat-related VAIs.





LESÕES VASCULARES DO PESCOÇO

RESUMO

Exame físico seriado associado à angiotomografia são importantes para diagnóstico de lesões vasculares cervicais.

Reconstrução é a conduta de escolha nas lesões vasculares extracraniana.

Ligadura vascular é possível em situações especiais

Tratamento endovascular está indicado nas lesões vasculares das Zonas I e III

ALTEC

LATES

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#EXPERIMENTE

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ALAGOAS - BRASIL