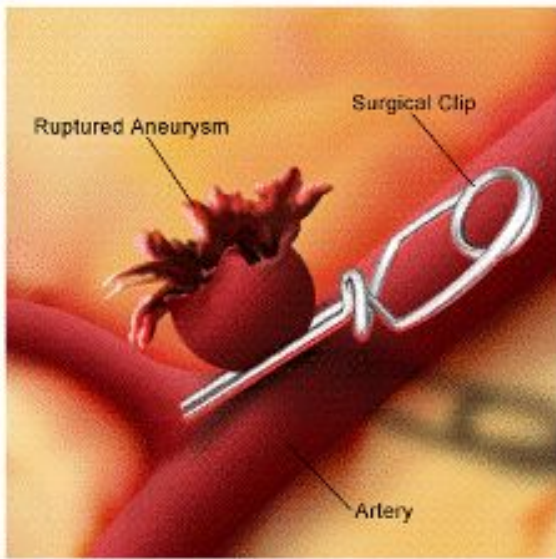
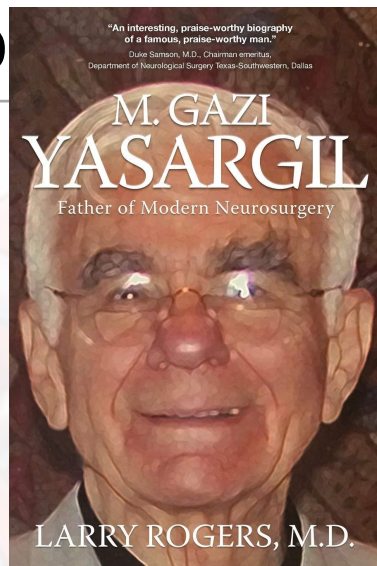
The background features a composite illustration. On the left, a dark grey, semi-transparent area shows a hand holding a catheter with a coiled tip, and another hand holding a pair of forceps. On the right, a light blue, semi-transparent area shows a 3D anatomical model of a blood vessel with a stent or filter placed inside. The overall theme is endovascular and neurointerventional surgery.

**Эндоваскулярная
хирургия
Вопросы
нейроинтервенции**

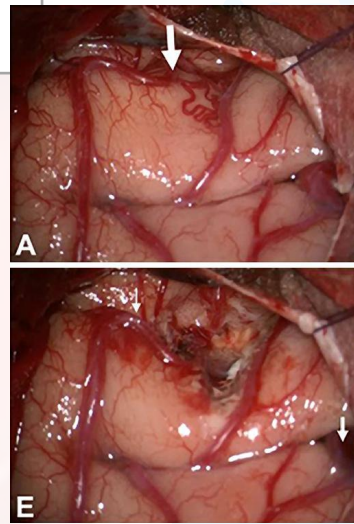
Орлов Е.А.
Москва
2021



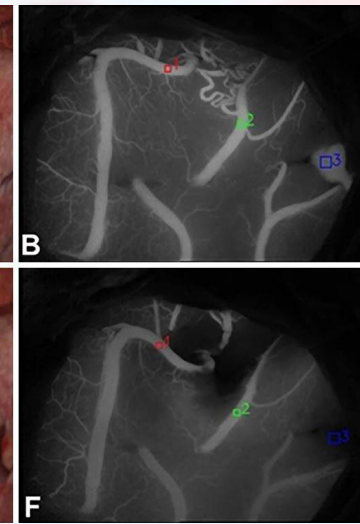
Dandy
1938



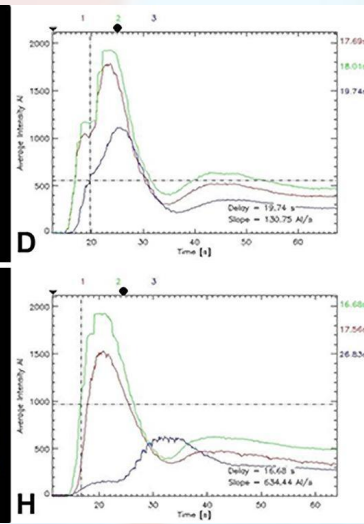
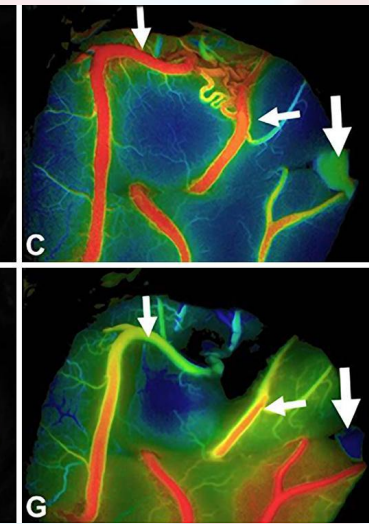
Yasargil
1967



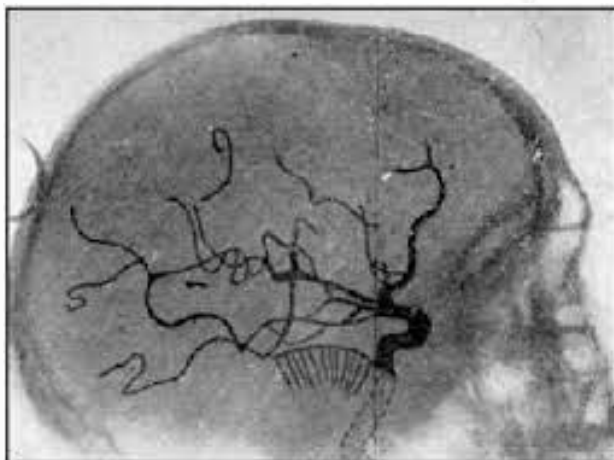
Raabe
2003



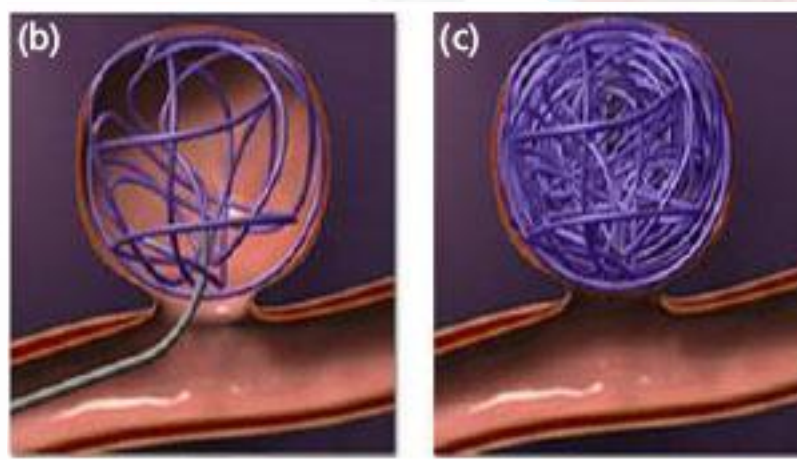
Langer
2018



Egas Moniz
1927



Guglielmi
1990



Nelson
2011



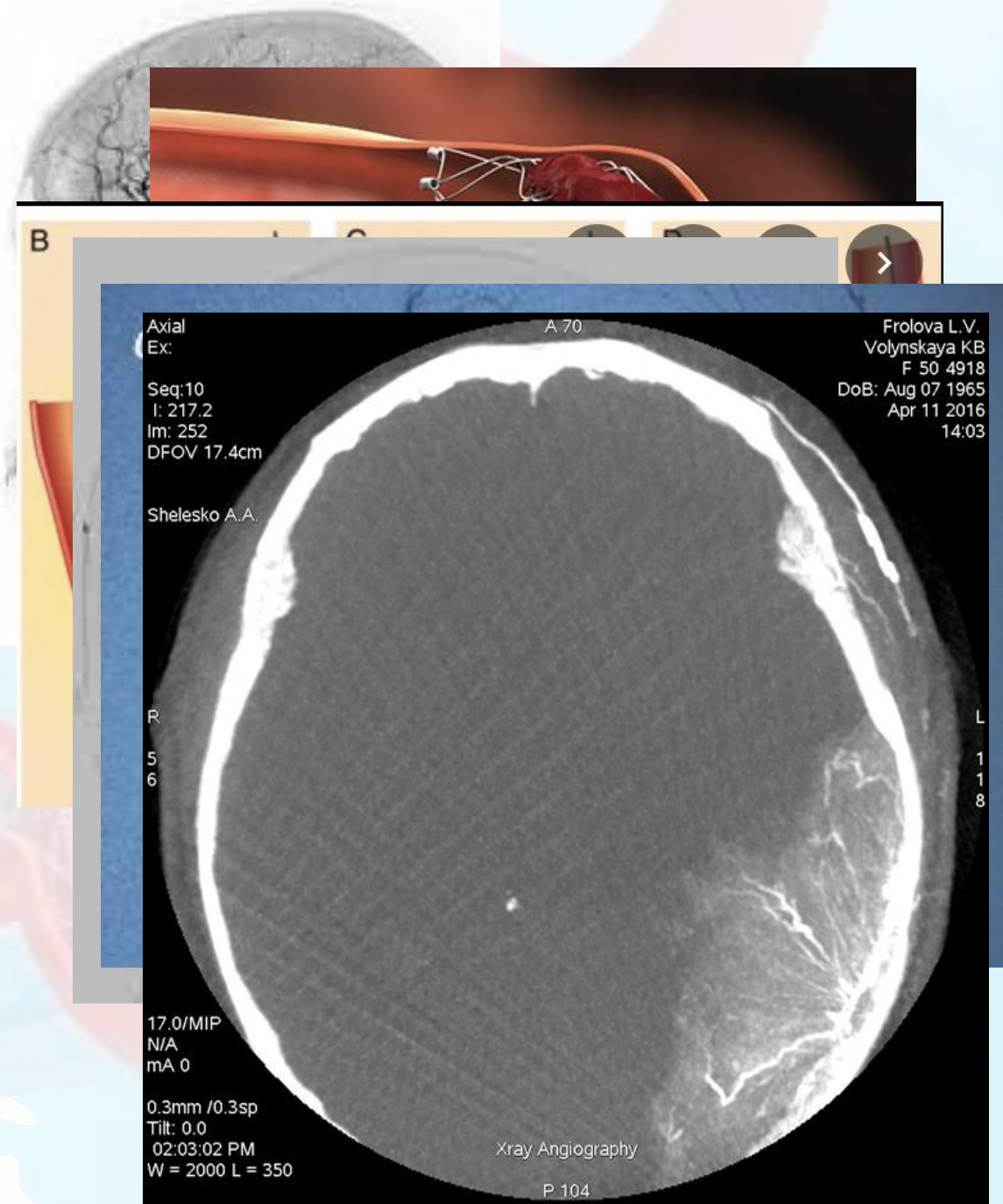
Pierot
2019



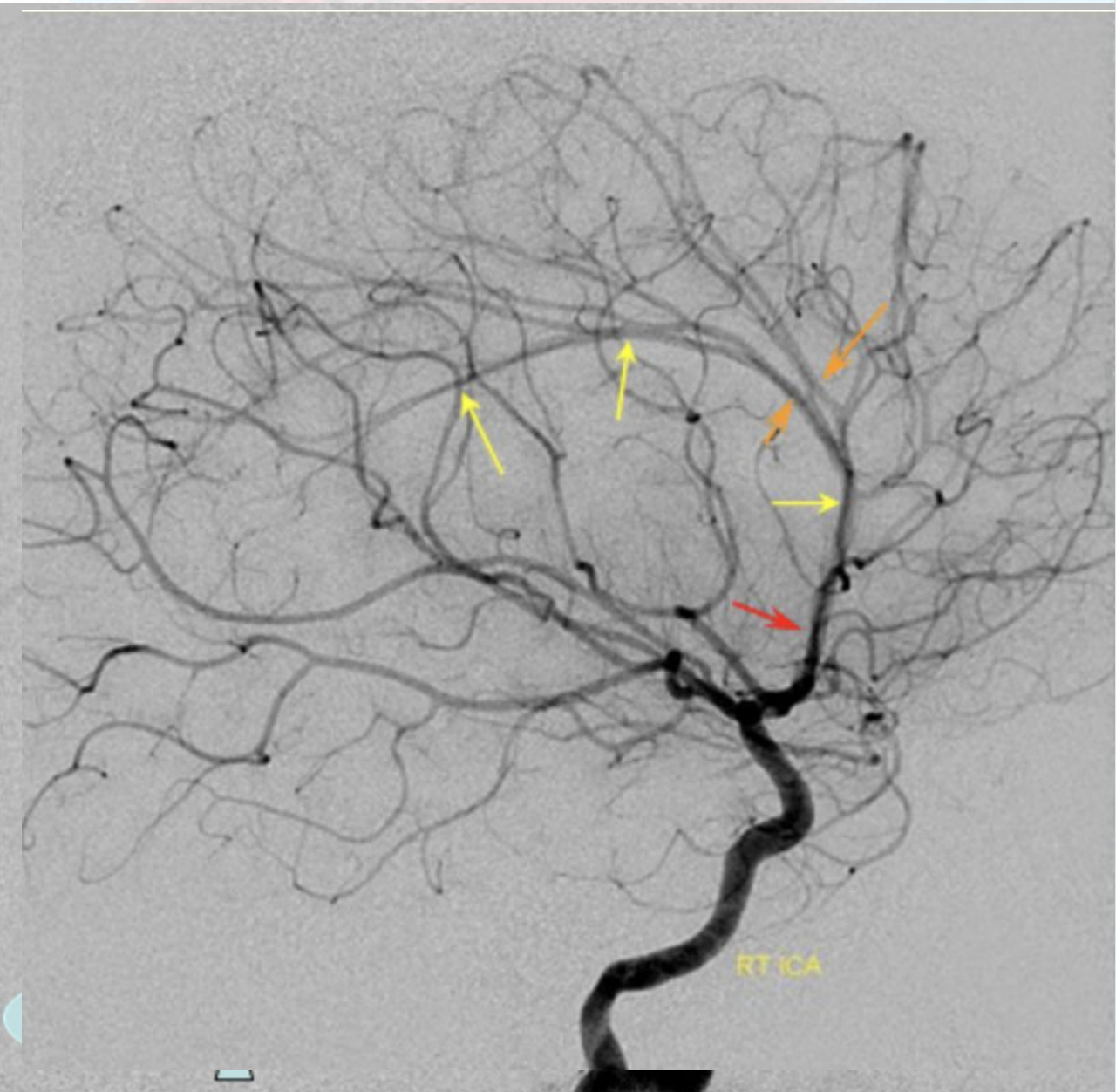
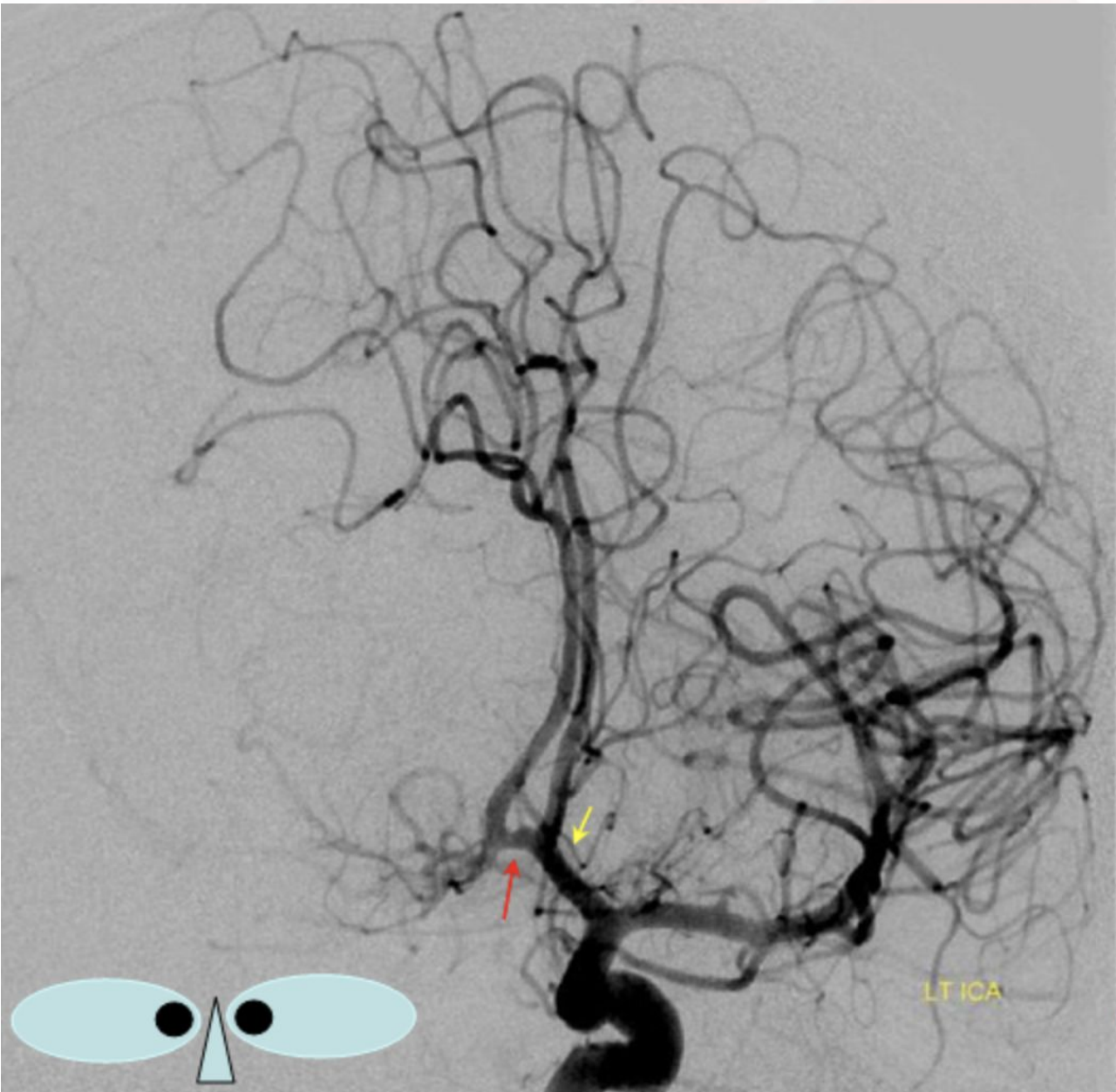
Применение сегодня

- Церебральная ангиография
- Лечение ОНМК (ИИ)
- Стентирование каротидных артерий
- Выключение аневризм
- Эмболизация АВМ и АВ-фистул
- Лечение вазоспазма
- Предоперационная эмболизация опухолей
- Лечение венозных мальформаций

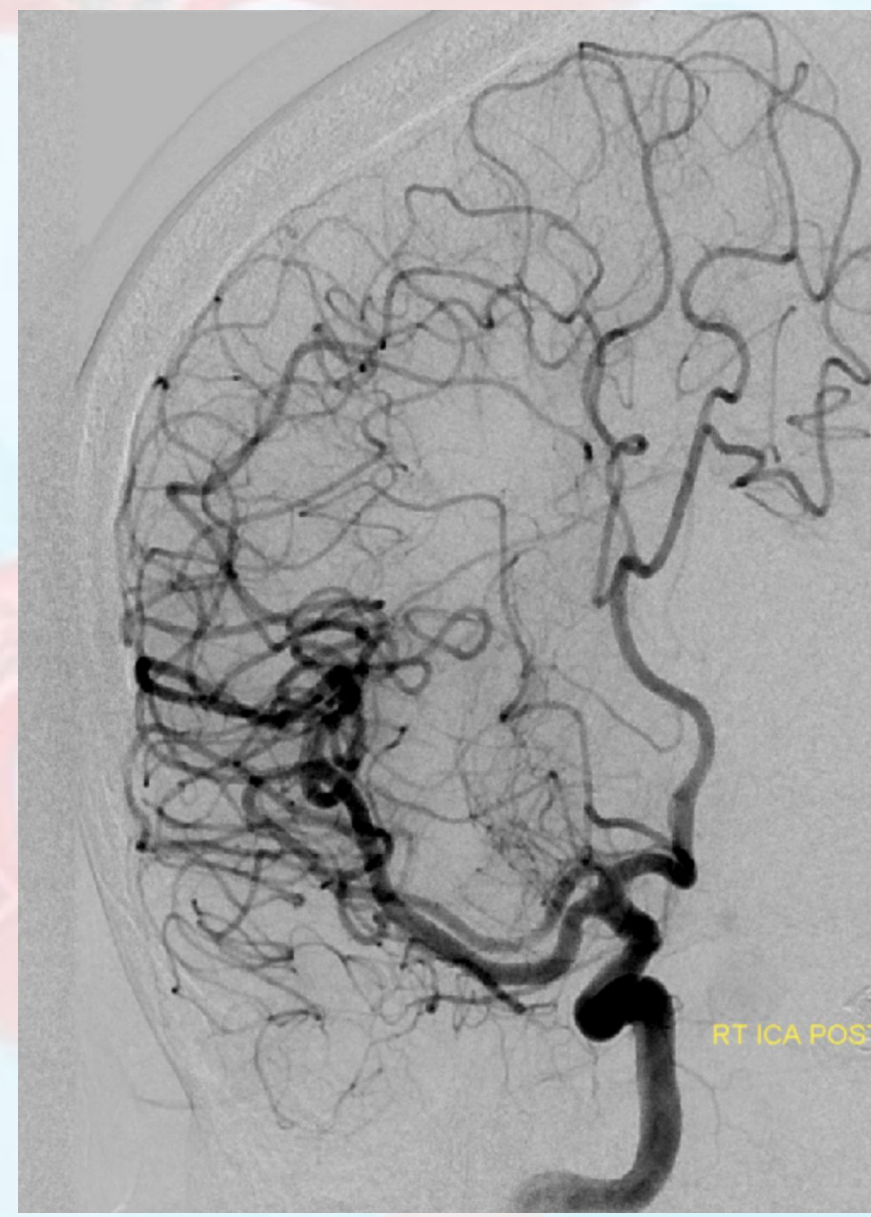
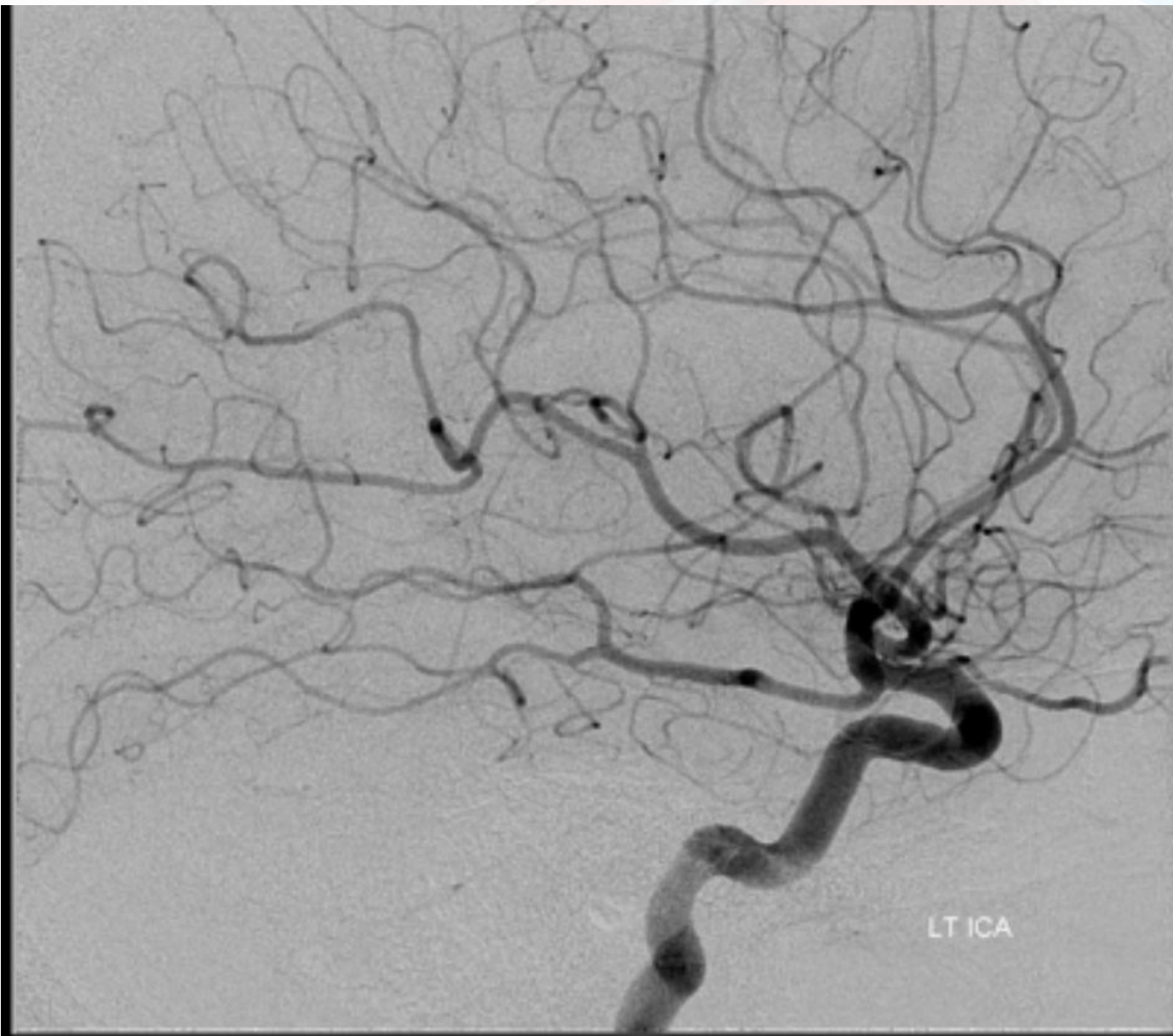
(вены Галена) и синус-тромбозов



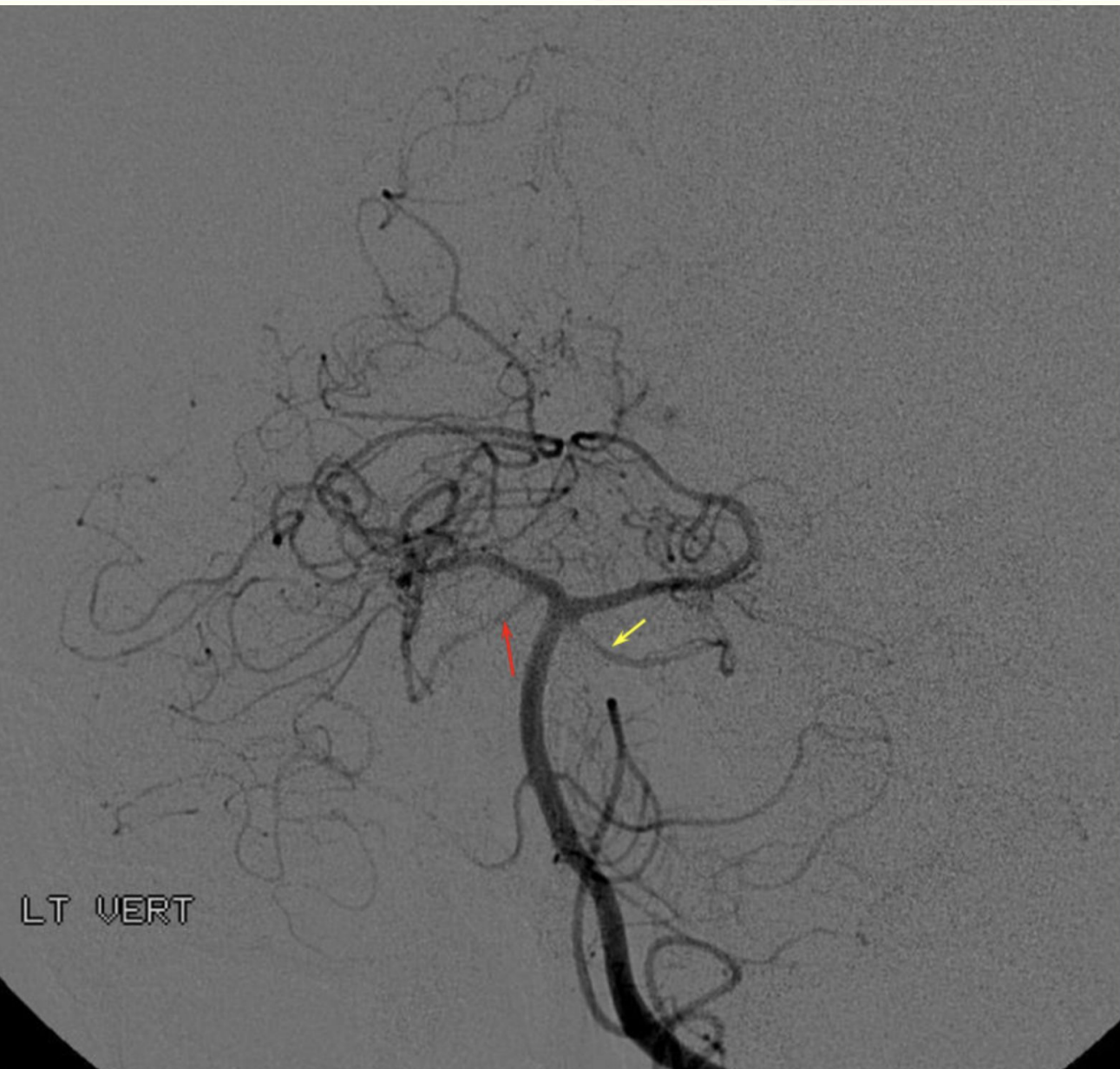
Церебральная ангиография – АСА



Церебральная ангиография – МСА

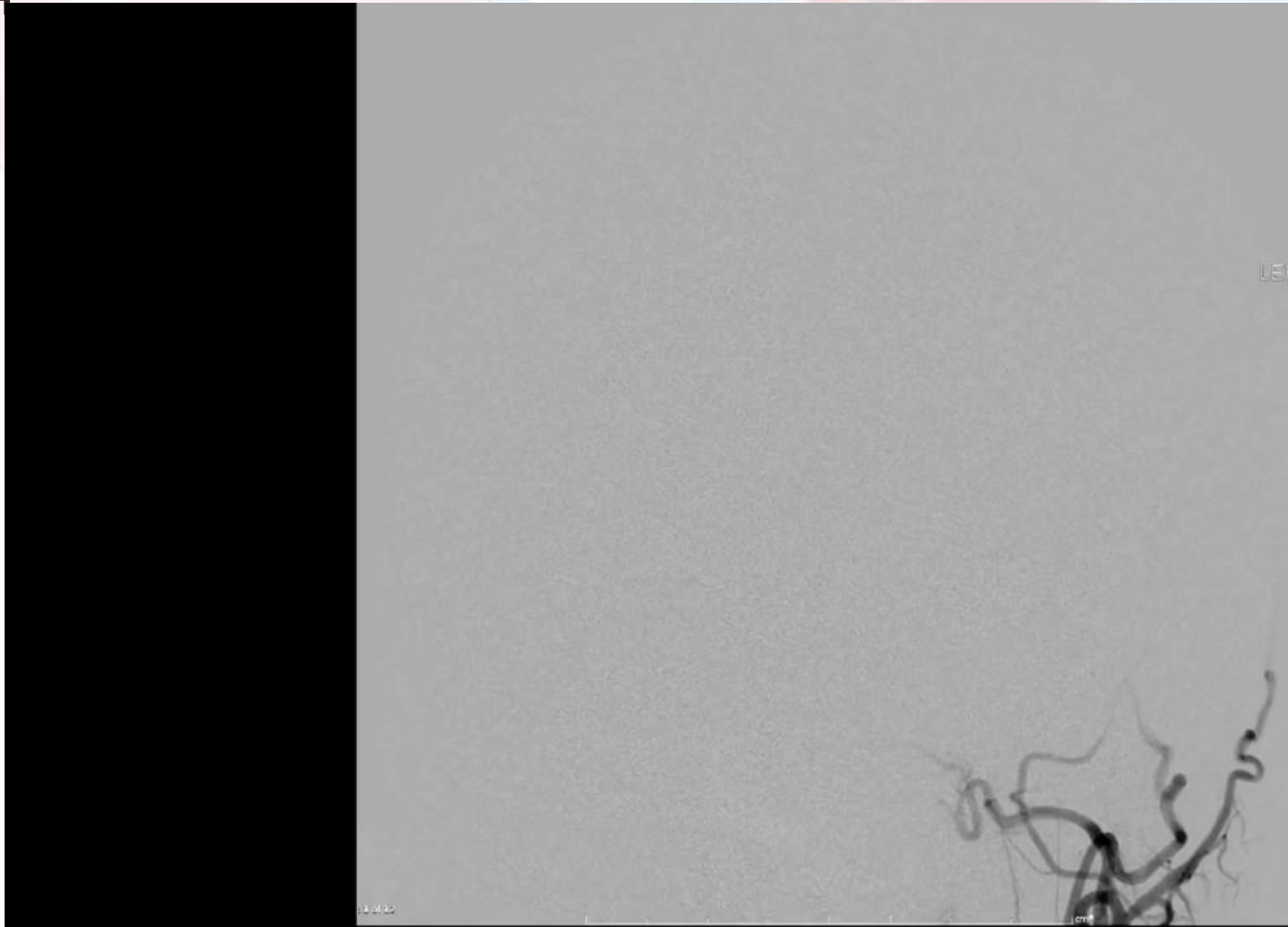


Церебральная ангиография – ВА, РСА, SCA



Лечение ОНМК

- Локальный тромболизис
- Тромбоэкстракция



Стентирование сонных артерий

The NEW ENGLAND
JOURNAL of MEDICINE

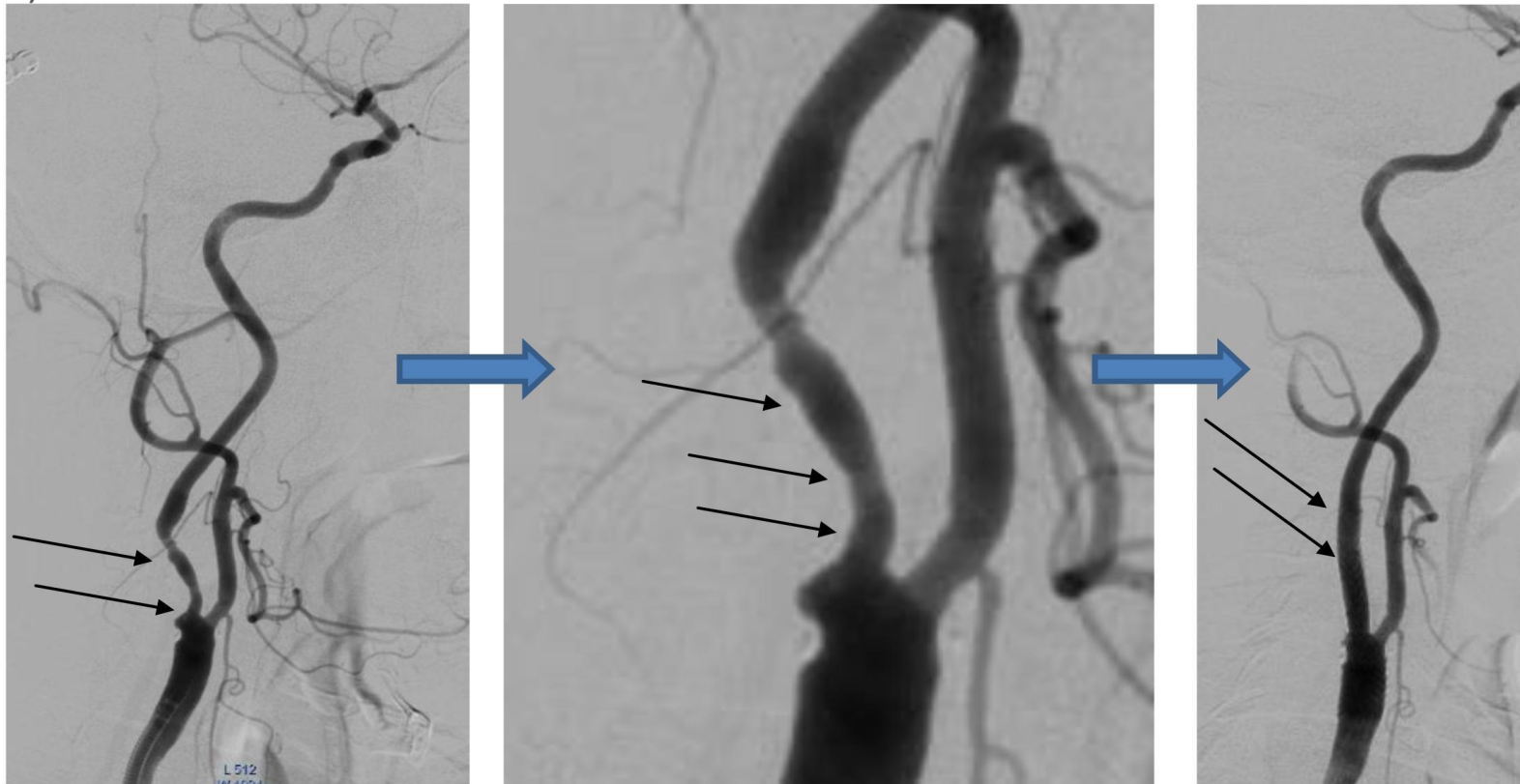
ESTABLISHED IN 1812

JULY 1, 2010

VOL. 363 NO. 1

Stenting versus Endarterectomy for Treatment
of Carotid-Artery Stenosis

Б)

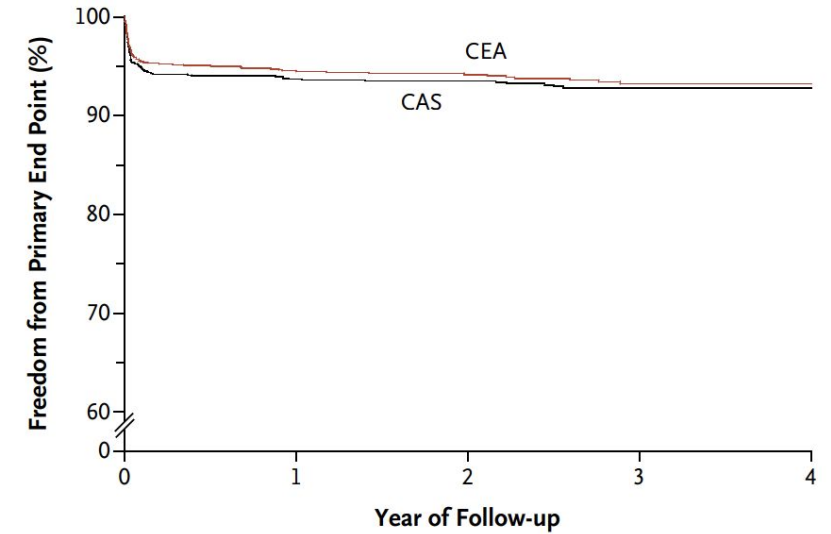


До вмешательства

Фрагмент стеноза

После стентирования

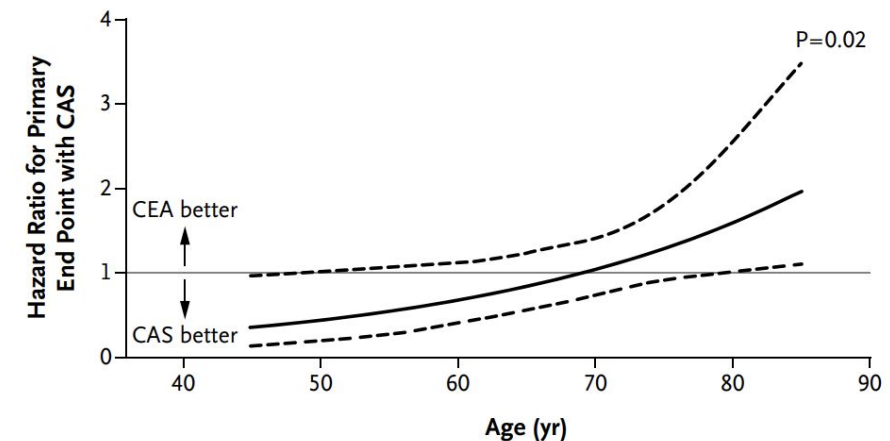
A



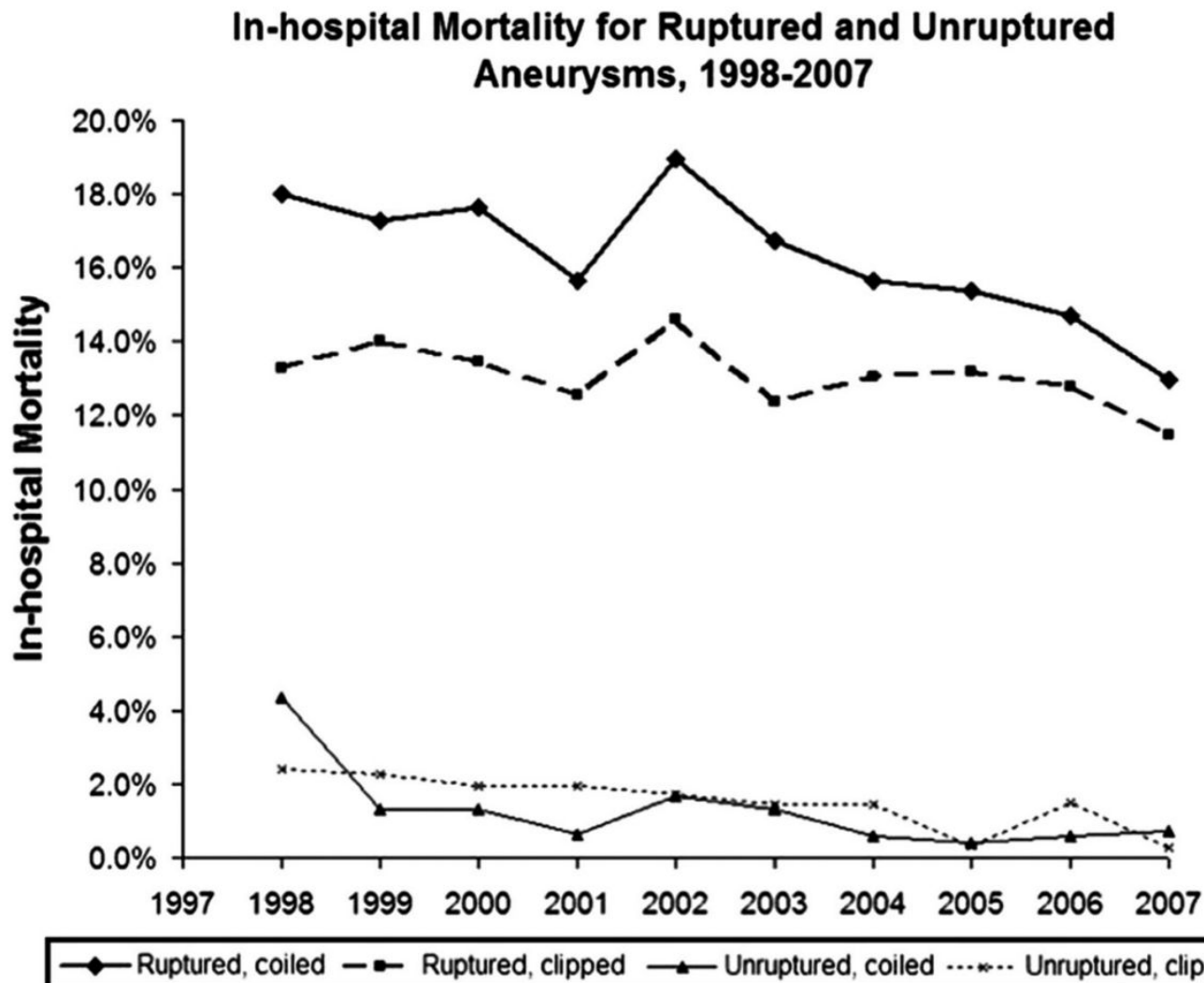
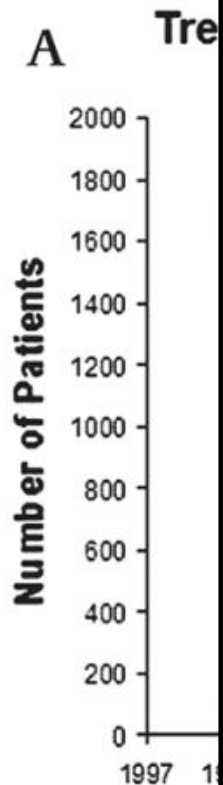
No. at Risk

	0	1	2	3	4
CAS	1262	1100	787	460	162
CEA	1240	1099	770	430	145

B

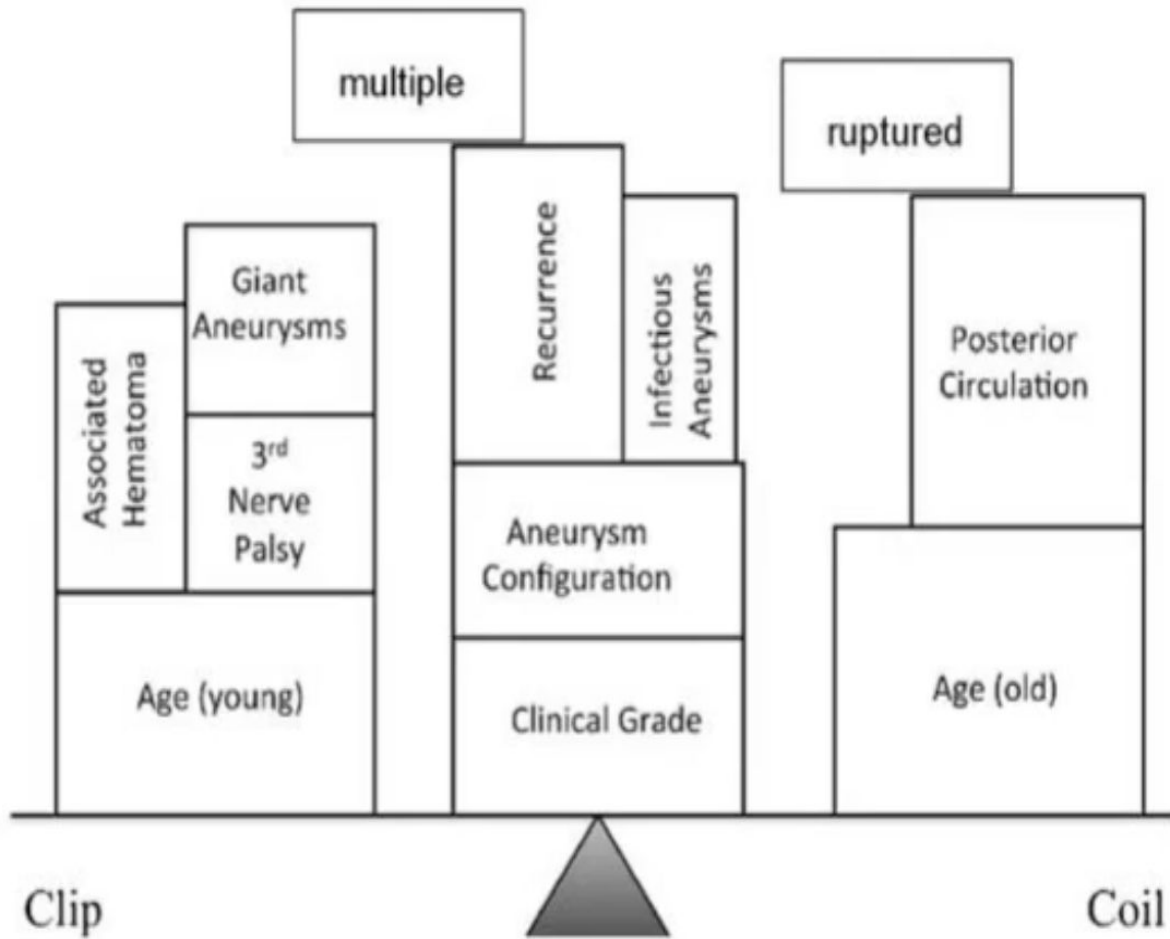


Trends in aneurysm surgery

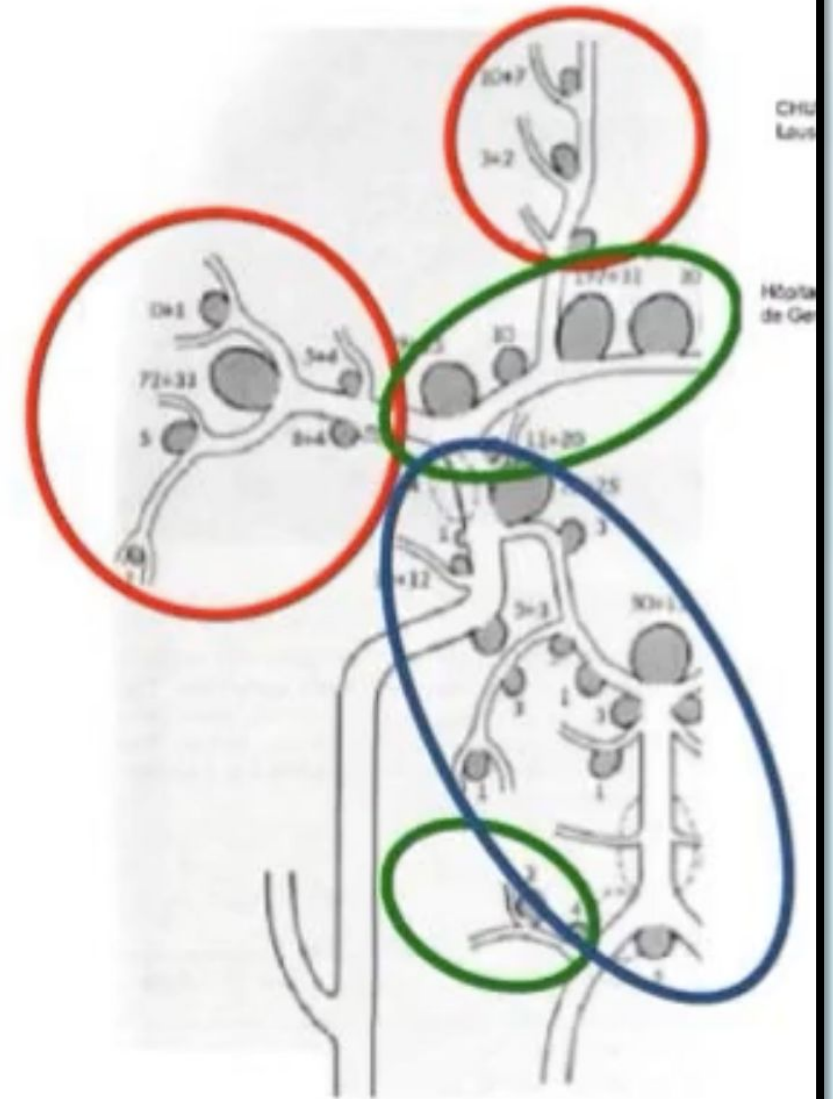


Clip vs Coil

The old debate: "Clip vs. Coil"



n=1787 aSAH (2009-2015)

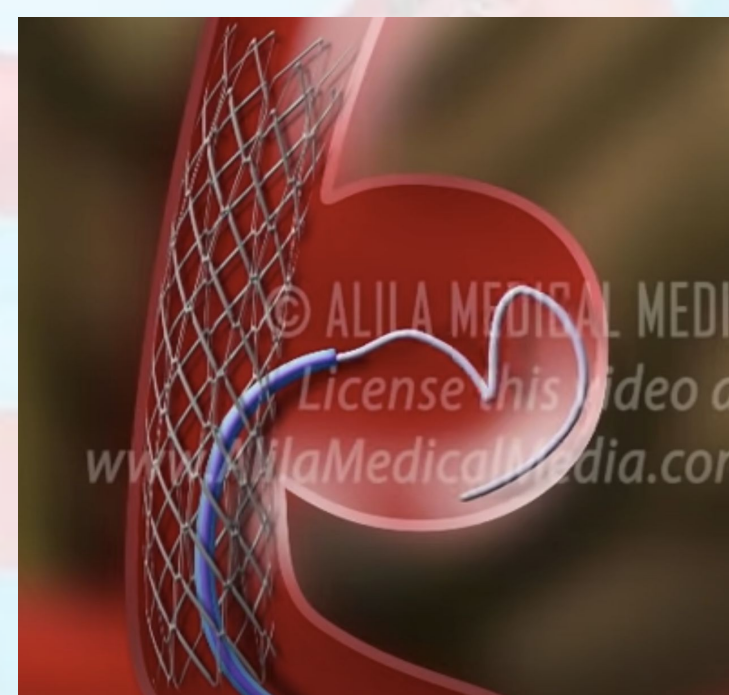
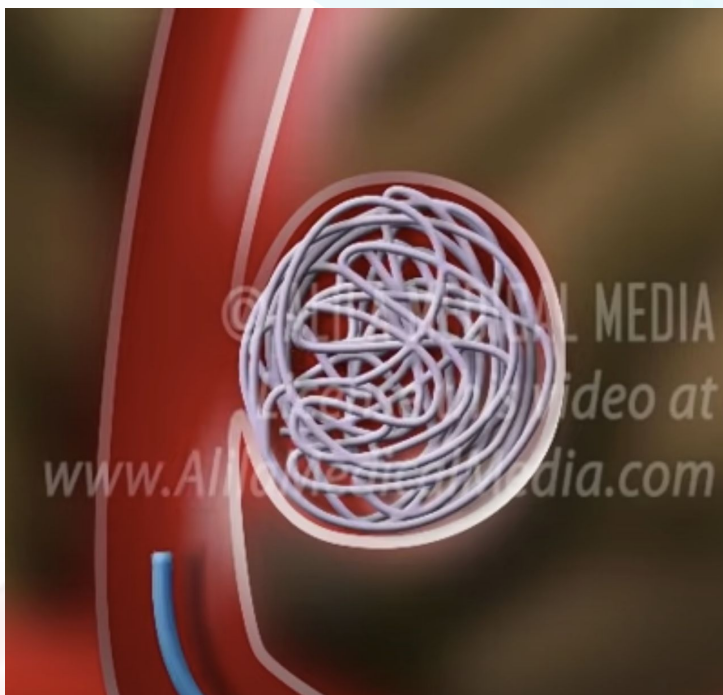
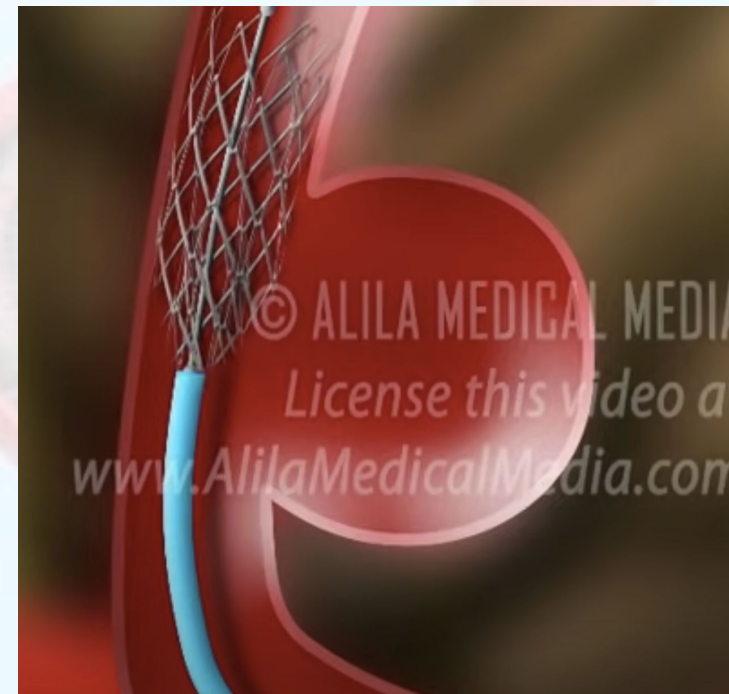
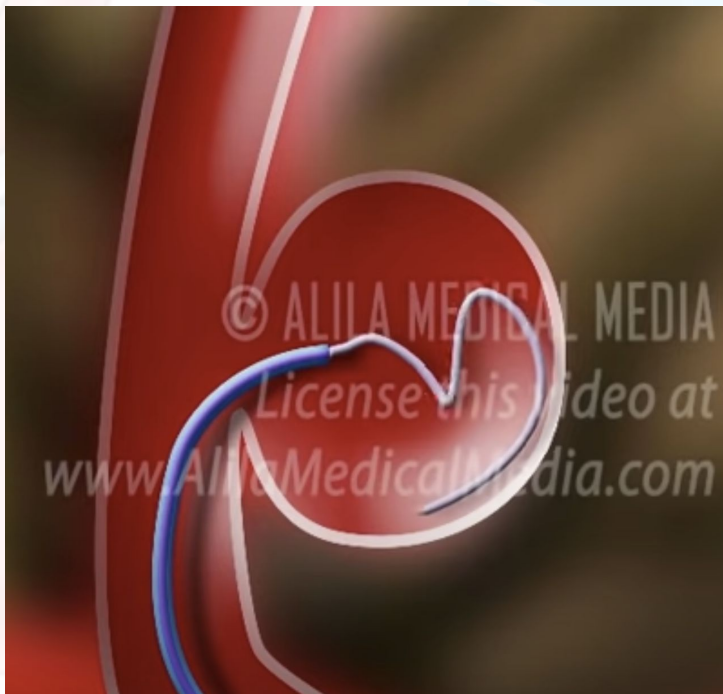


Coiling

**Эмболизация
спиралями**

**Стент/Баллон-
асистированная
эмболизация**

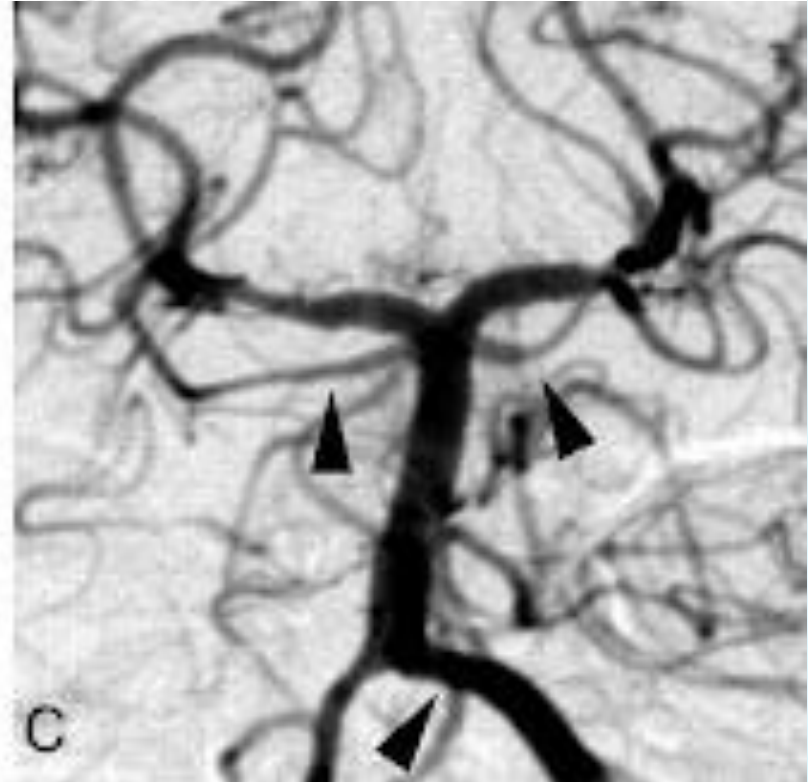
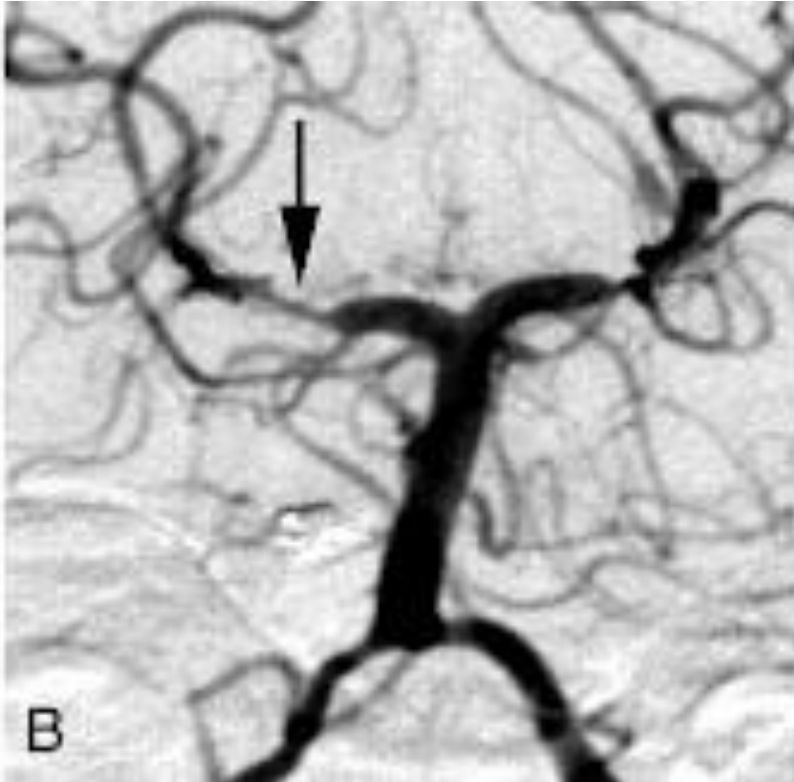
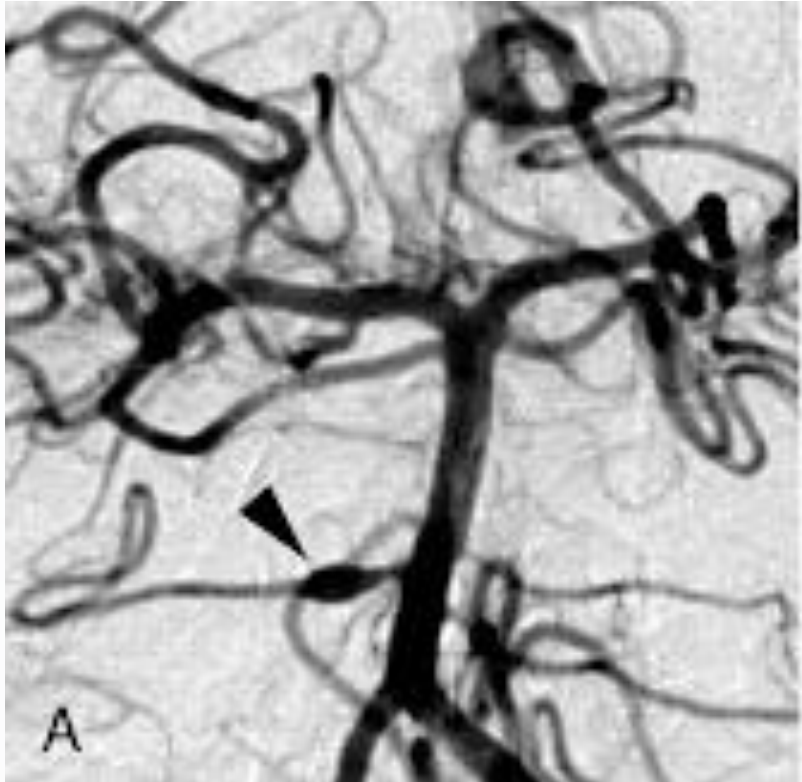
**Установка поток-
перенаправляющих
стентов (perline)**



Терапия вазоспазма

Calcium-dependent
vasoconstriction

Calcium-independent
vasoconstriction



Neurogenic factors

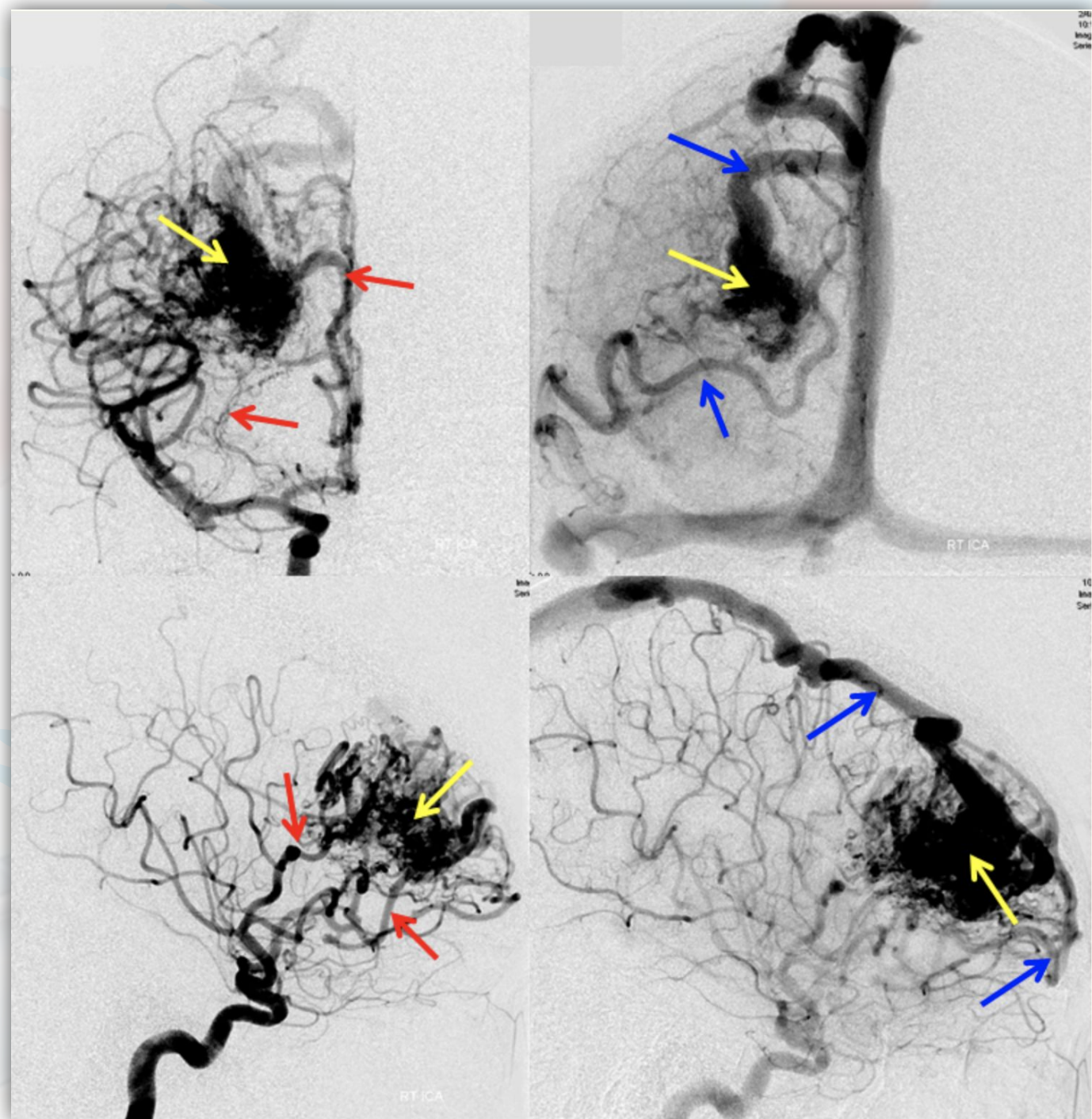
Decreased NO
availability

AV- мальформации

Surgery vs Embolization vs Radiotherapy

TABLE 19-1 Spetzler–Martin Scale for Prediction of Surgical Risk for AVM

GRADED FEATURE	POINTS
<i>Maximum Diameter of AVM</i>	
Measured from the angiogram and correcting for magnification.	
Small <3 cm	1
Medium 3–6 cm	2
Large >6 cm	3
<i>Eloquence of Adjacent Brain</i>	
Eloquent brain includes primary sensorimotor, language, and visual cortex, hypothalamus, thalamus, internal capsule, brainstem, cerebellar peduncles, and the deep cerebellar nuclei.	
Eloquent	1
Noneloquent	0
<i>Pattern of Venous Drainage</i>	
Deep veins are considered those that drain to the internal cerebral vein, the basal vein of Rosenthal, or the precentral cerebellar vein.	
Superficial	0
Deep	1



Эмболизация опухолей

Box 4

Hypervascular tumors amenable to preoperative embolization

Intracranial

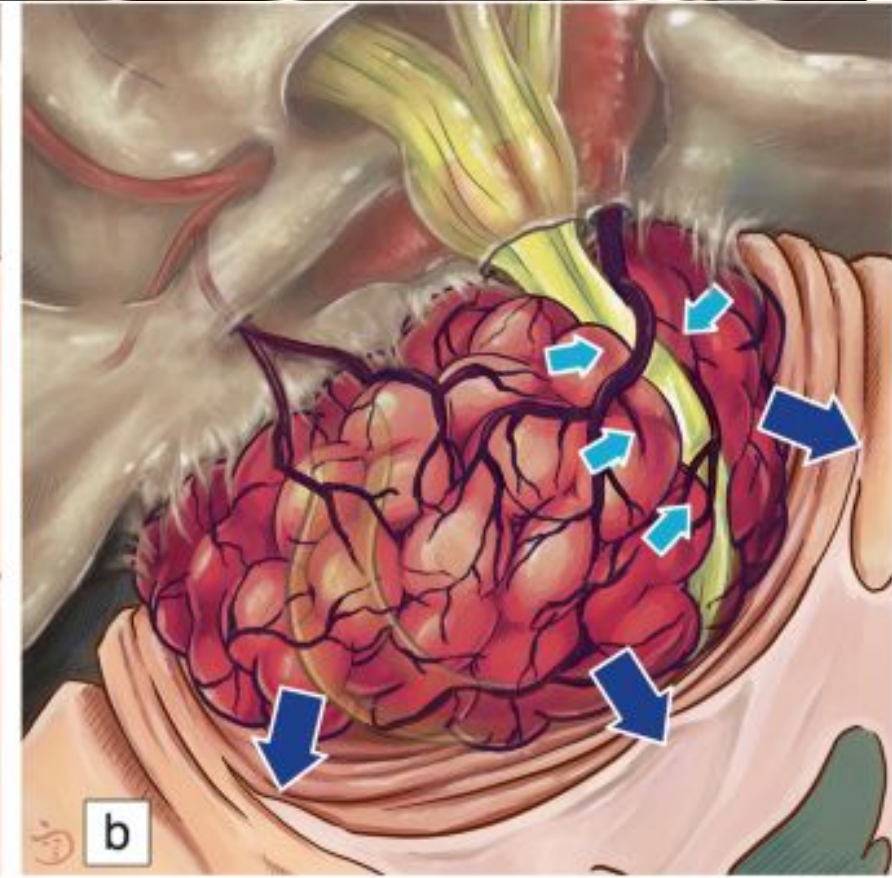
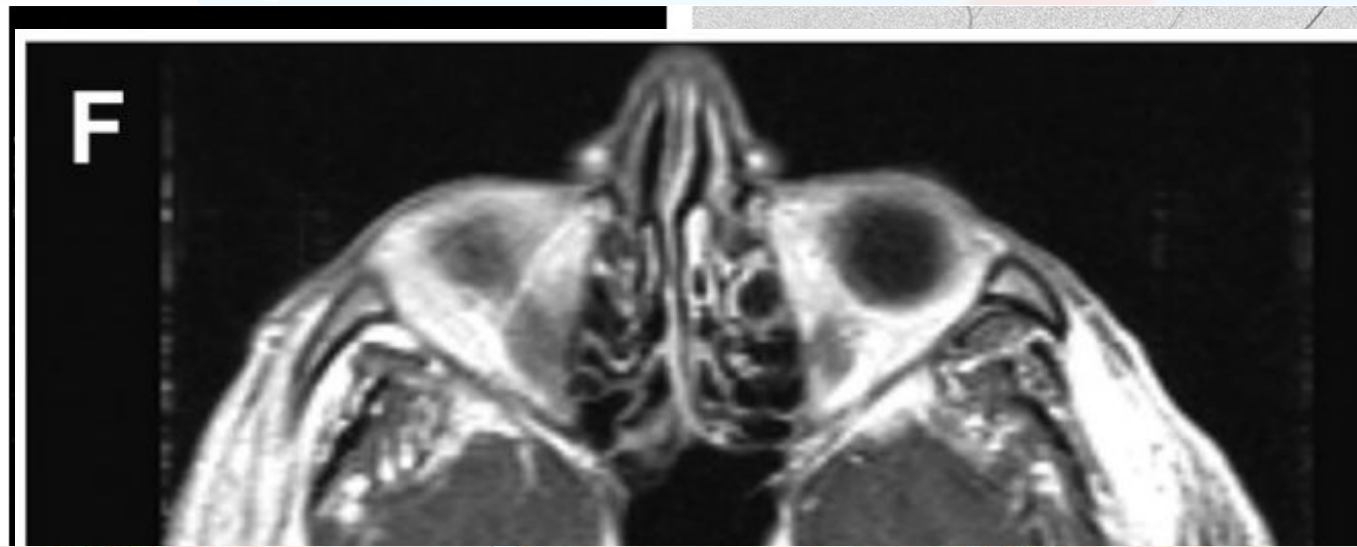
- Meningioma
- Hemangiopericytoma
- Hemangioblastoma
- Glomus jugulare tumor
- Metastases (renal cell)

Head and neck

- Juvenile nasal angiofibroma
- Carotid body tumor
- Glomus vagale tumor

Spinal

- Hemangioblastoma
- Hemangioma
- Aneurysmal bone cyst
- Giant cell tumor
- Osteoblastoma
- Metastases (renal cell, thyroid)



The background features a medical illustration. On the left, a large red vessel is shown with a silver, zig-zag stent placed inside it. A hand is visible at the bottom left, holding a similar stent. On the right, a smaller red vessel is shown with a similar stent. The overall scene is set against a light blue background with faint, larger-scale illustrations of the same vessels and stents.

Спасибо за внимание

**Вопросы, пожелания,
предложения...**