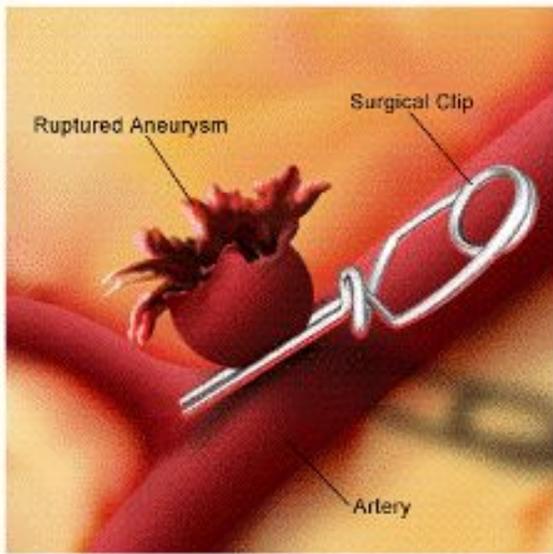
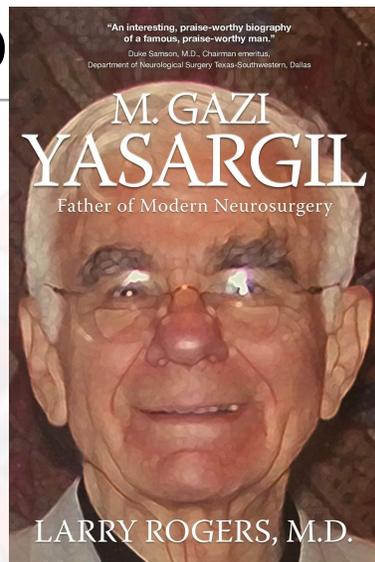
The background features a composite illustration. On the left, a dark grey, semi-transparent area shows a close-up of a surgical procedure with blue and red vessels and a hand holding a small metal coil. On the right, a light blue, semi-transparent area shows a 3D anatomical model of a brain's vasculature with a red aneurysm and a stent-like device placed within a vessel.

**Эндоваскулярная
хирургия
Вопросы
нейроинтервенции**

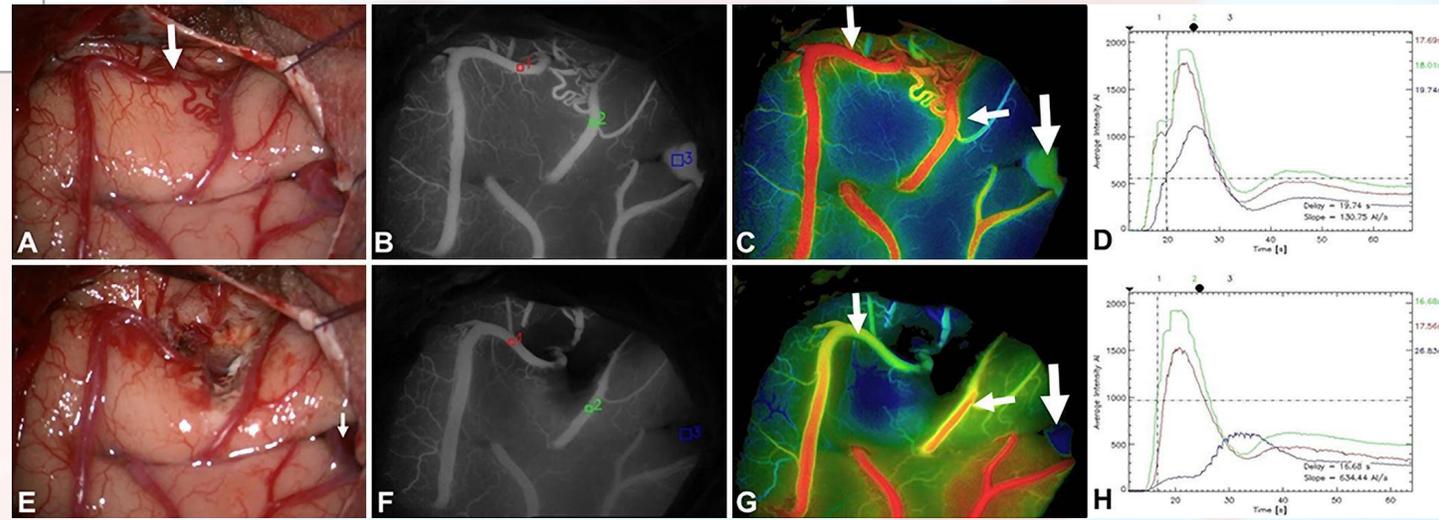
Орлов Е.А.
Москва
2021



Dandy
1938



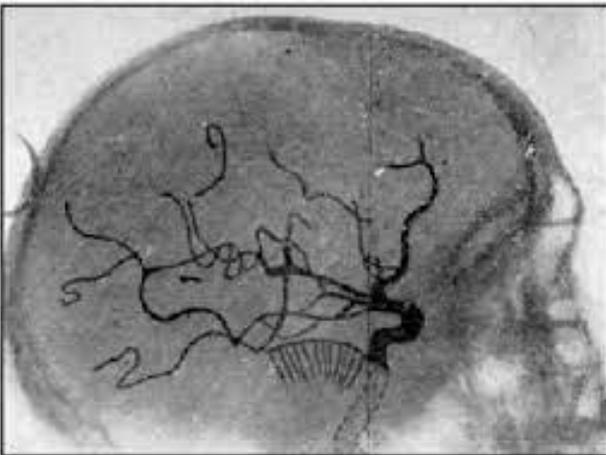
Yasargil
1967



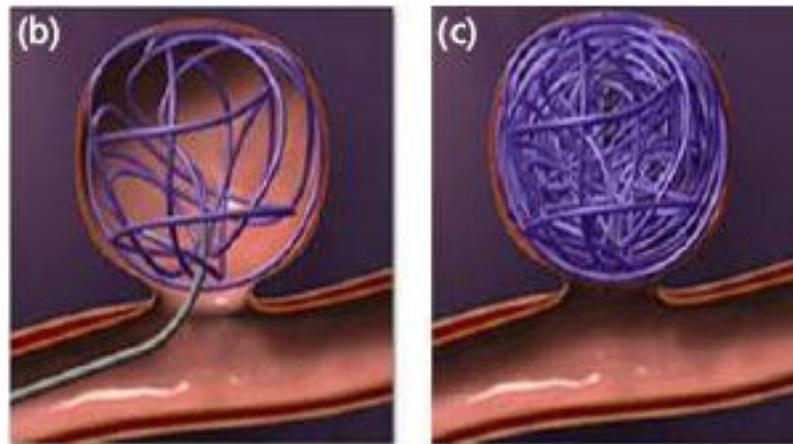
Raabe
2003

Langer
2018

Egas Moniz
1927



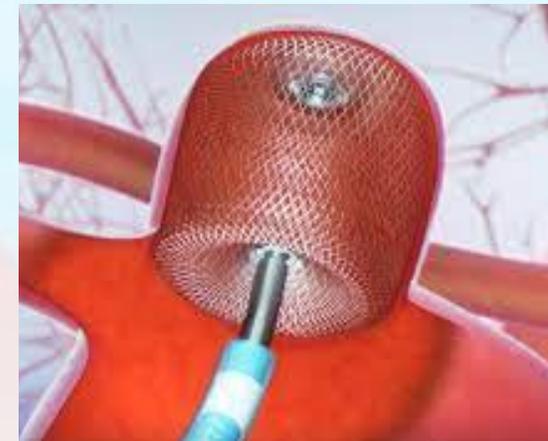
Guglielmi
1990



Nelson
2011



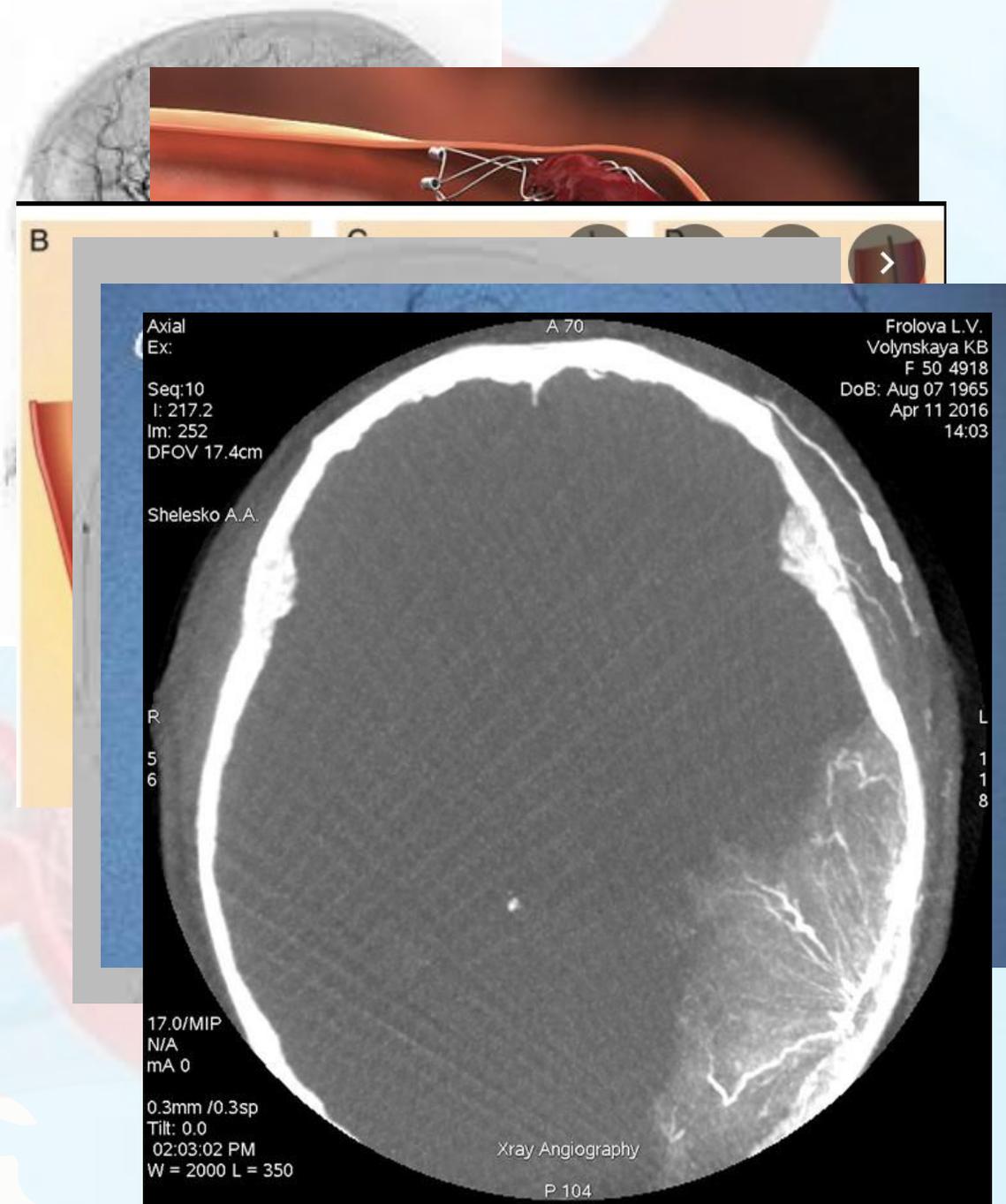
Pierot
2019



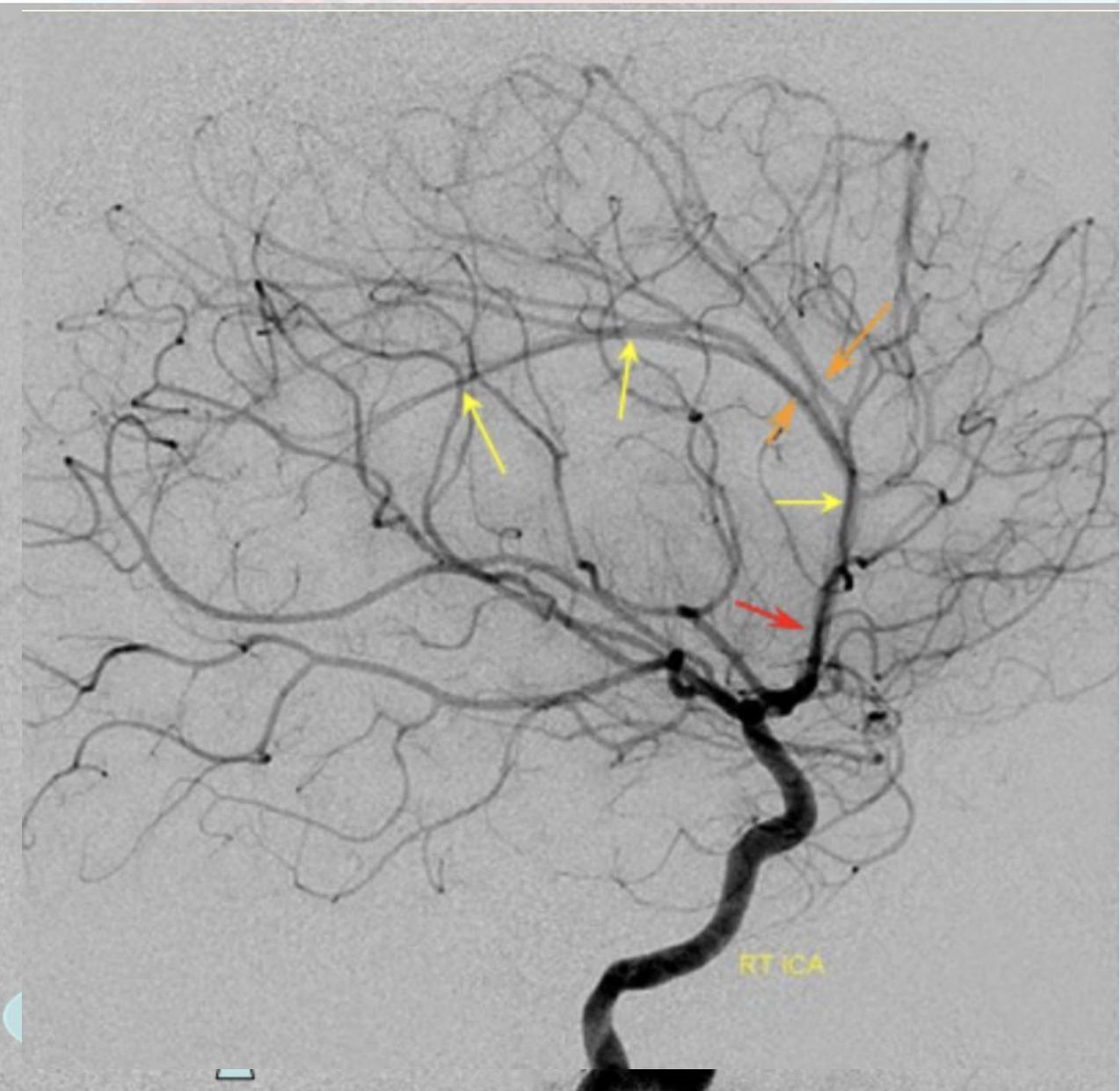
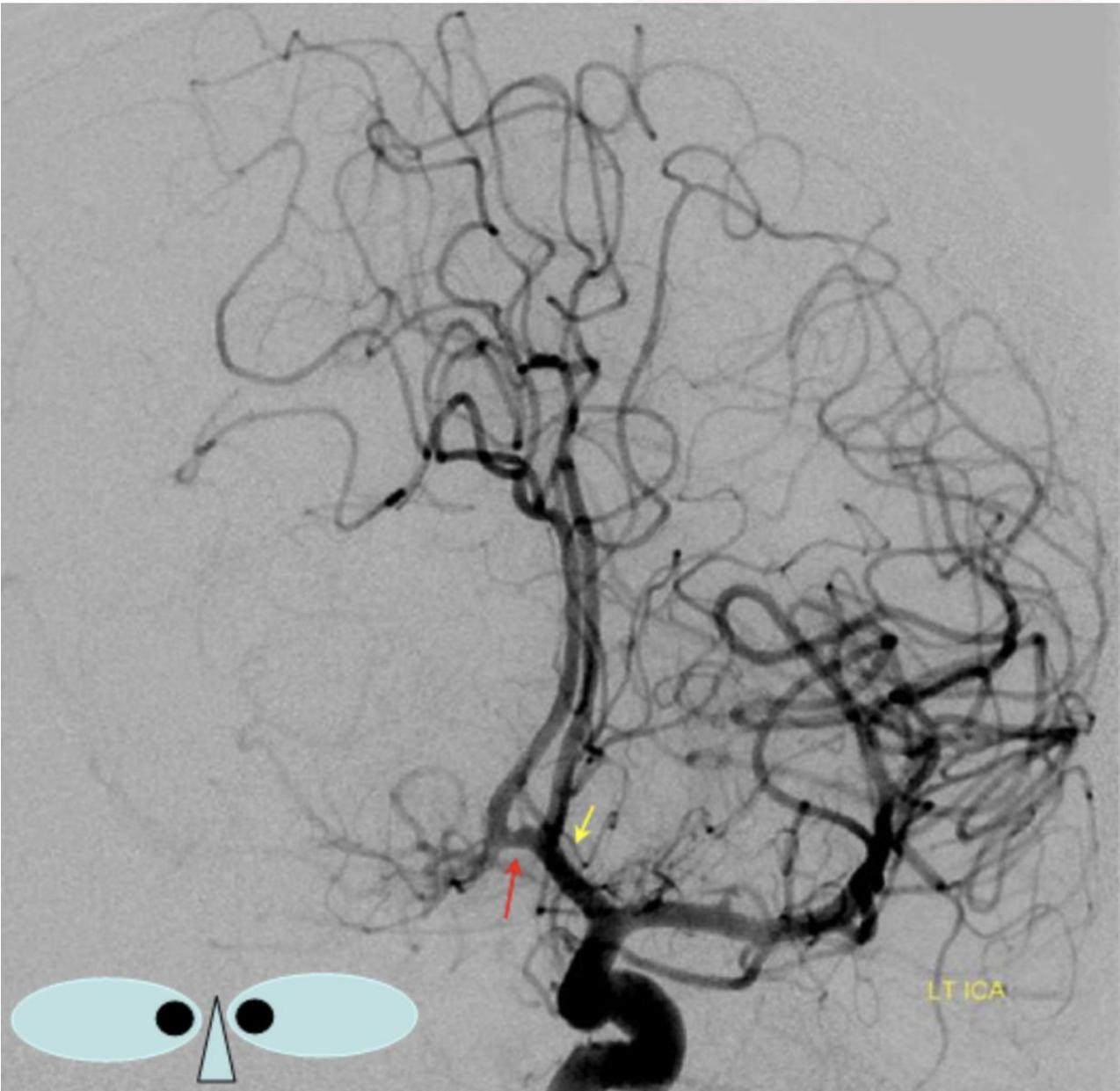
Применение сегодня

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

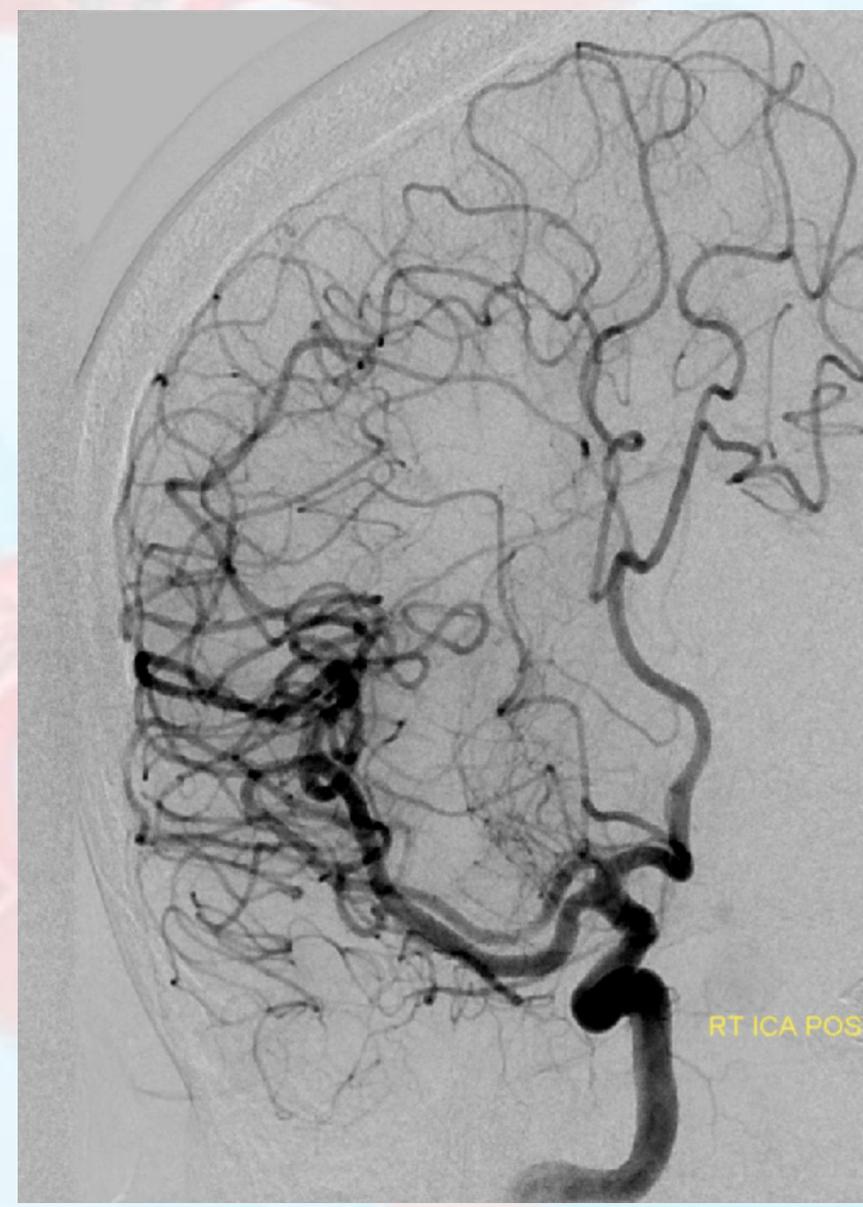
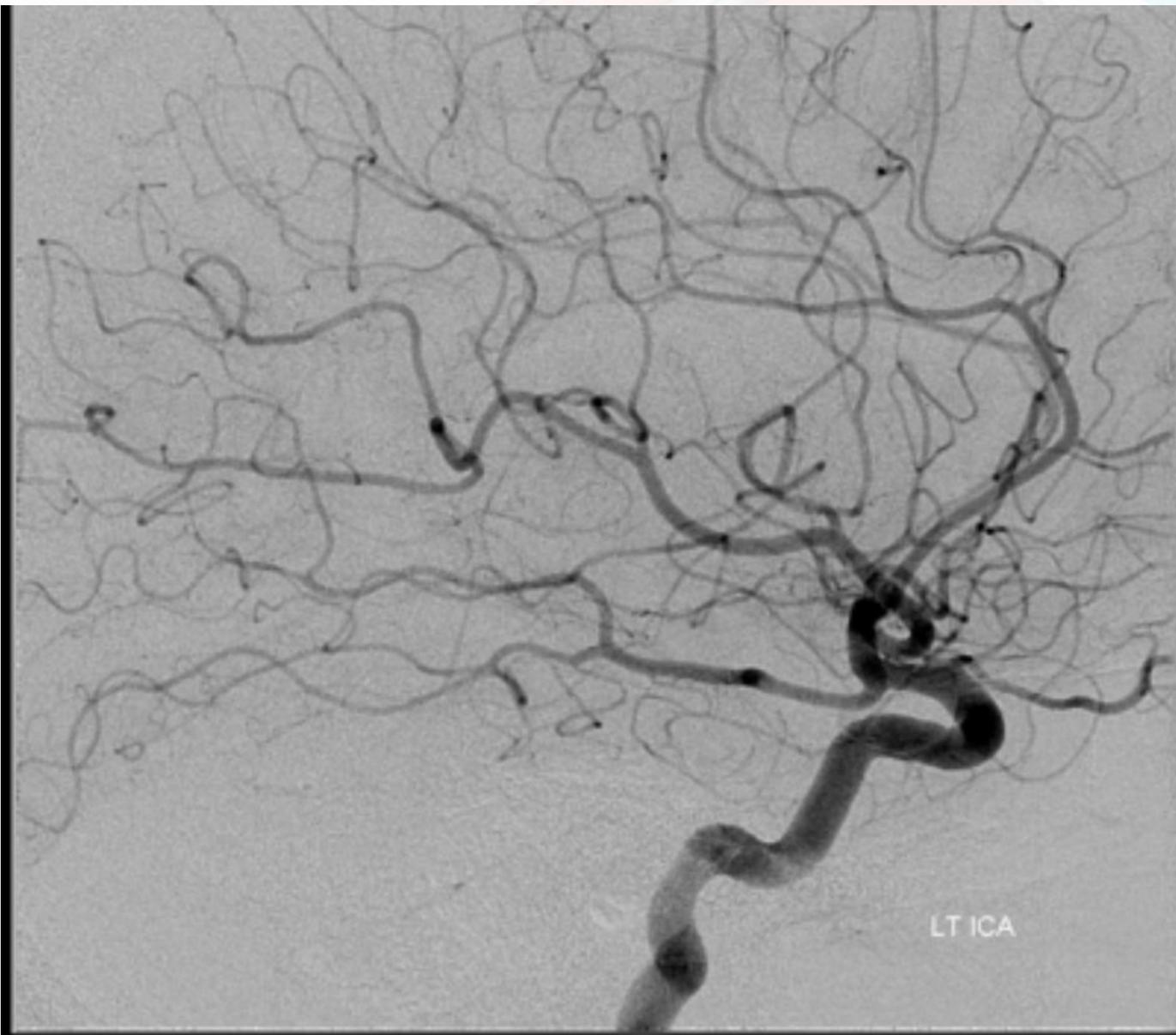
(вены Галена) и синус-тромбозов



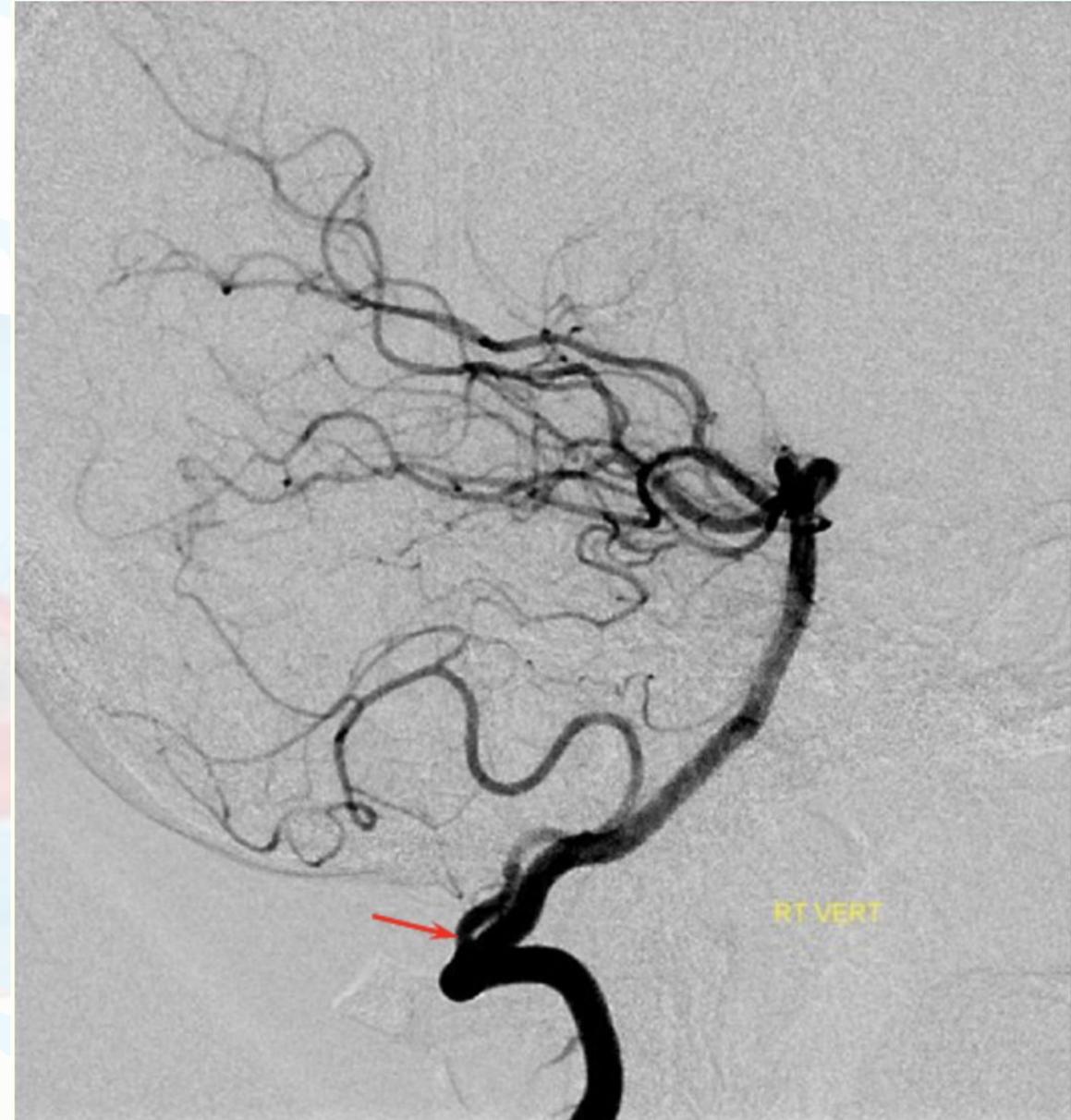
Церебральная ангиография – АСА



Церебральная ангиография – MCA

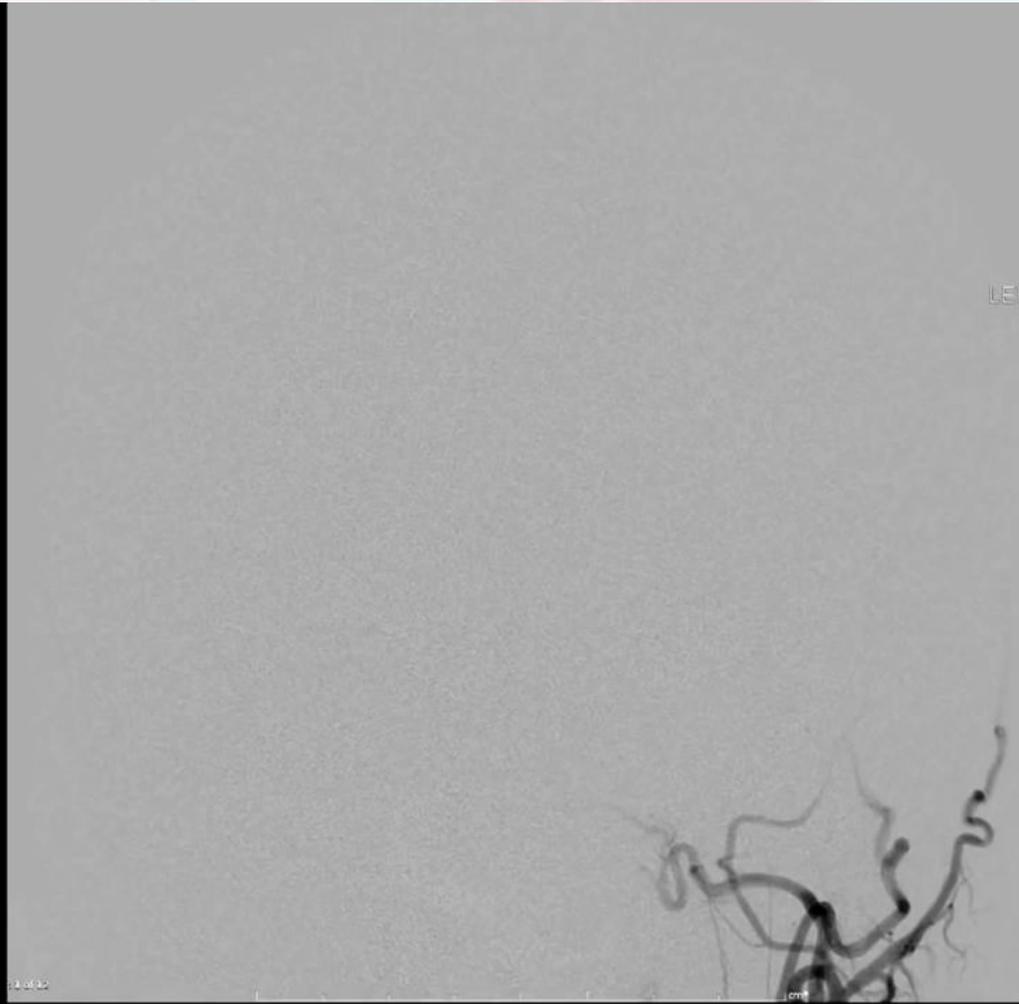


Церебральная ангиография – ВА, РСА, SCA



Лечение ОНМК

- Локальный тромболизис
- Тромбоэкстракция



Стентирование сонных артерий

The NEW ENGLAND
JOURNAL of MEDICINE

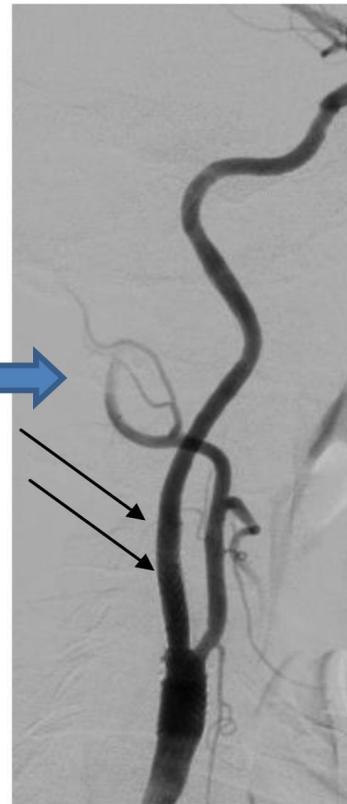
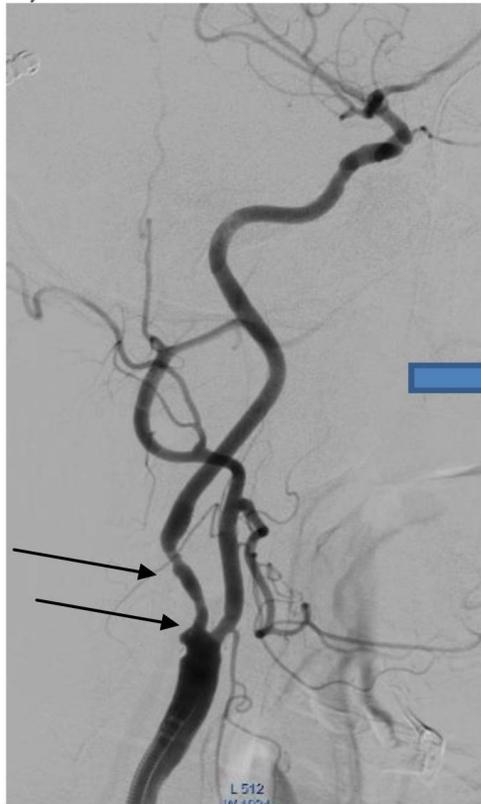
ESTABLISHED IN 1812

JULY 1, 2010

VOL. 363 NO. 1

Stenting versus Endarterectomy for Treatment
of Carotid-Artery Stenosis

Б)

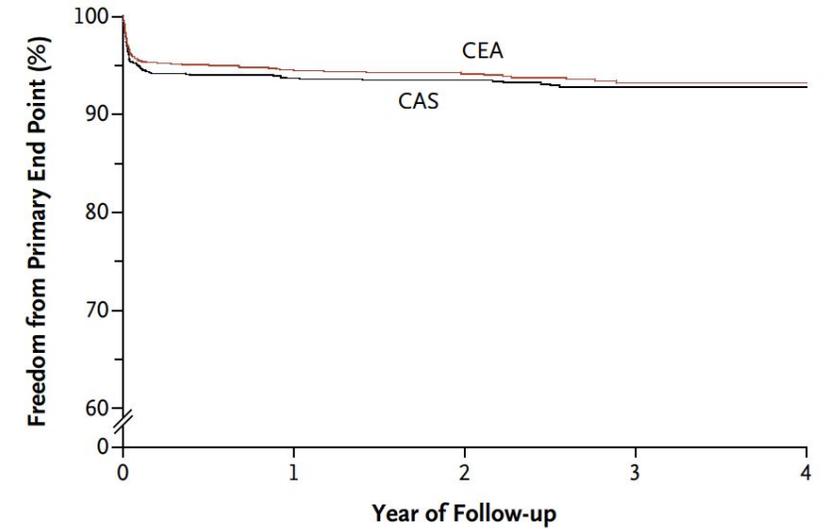


До вмешательства

Фрагмент стеноза

После стентирования

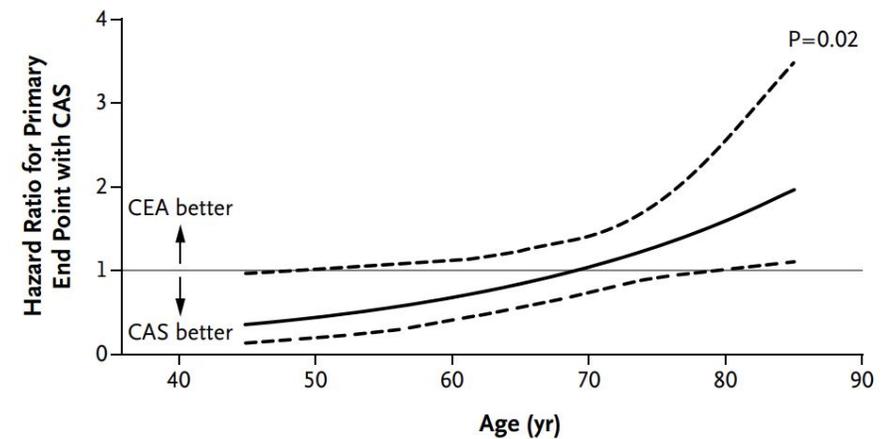
A



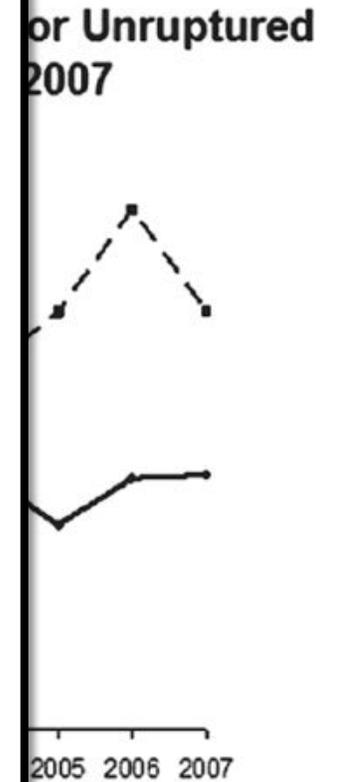
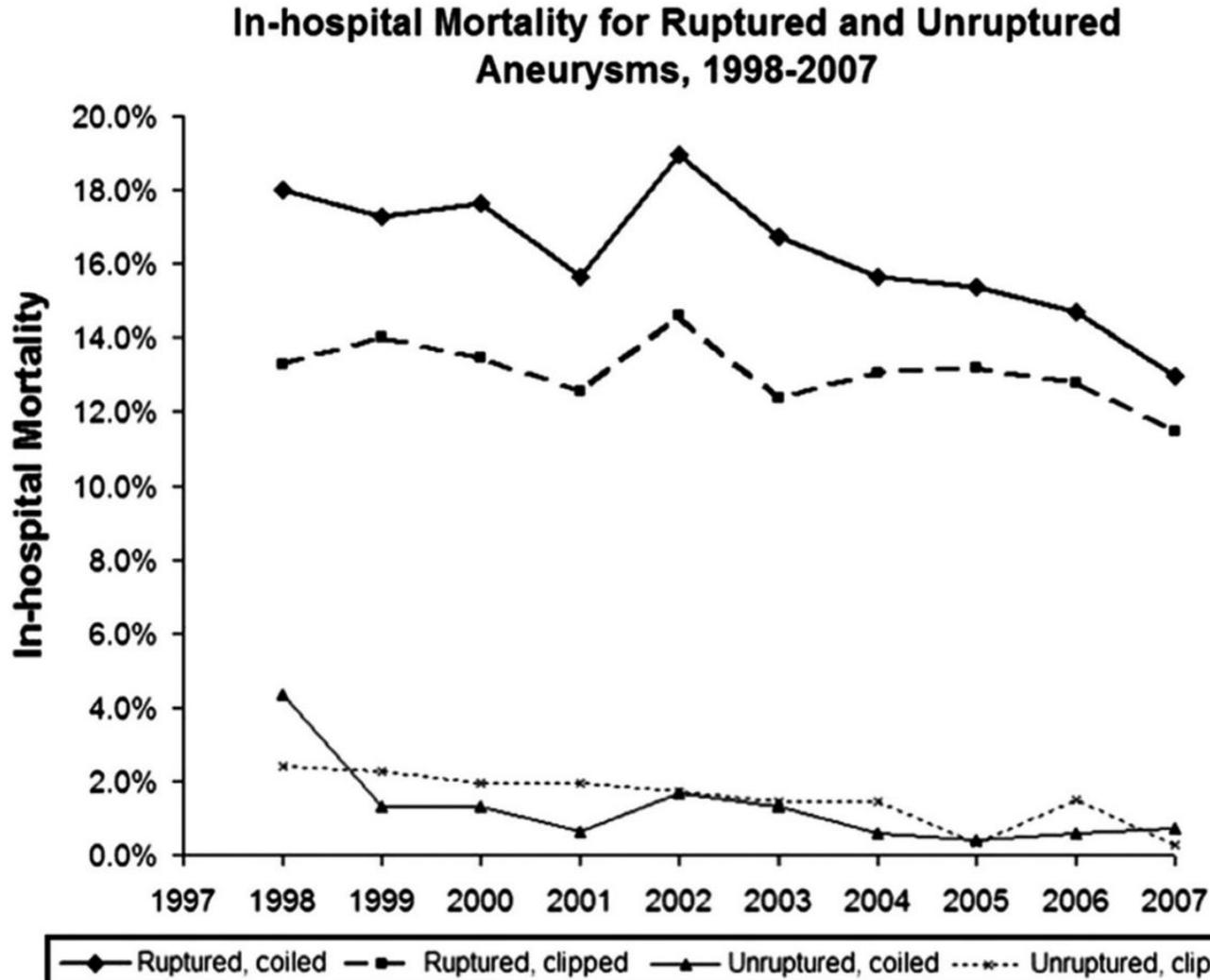
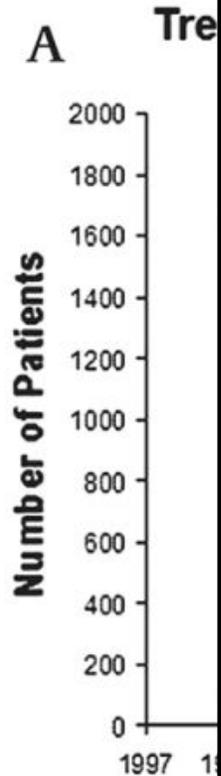
No. at Risk

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

B

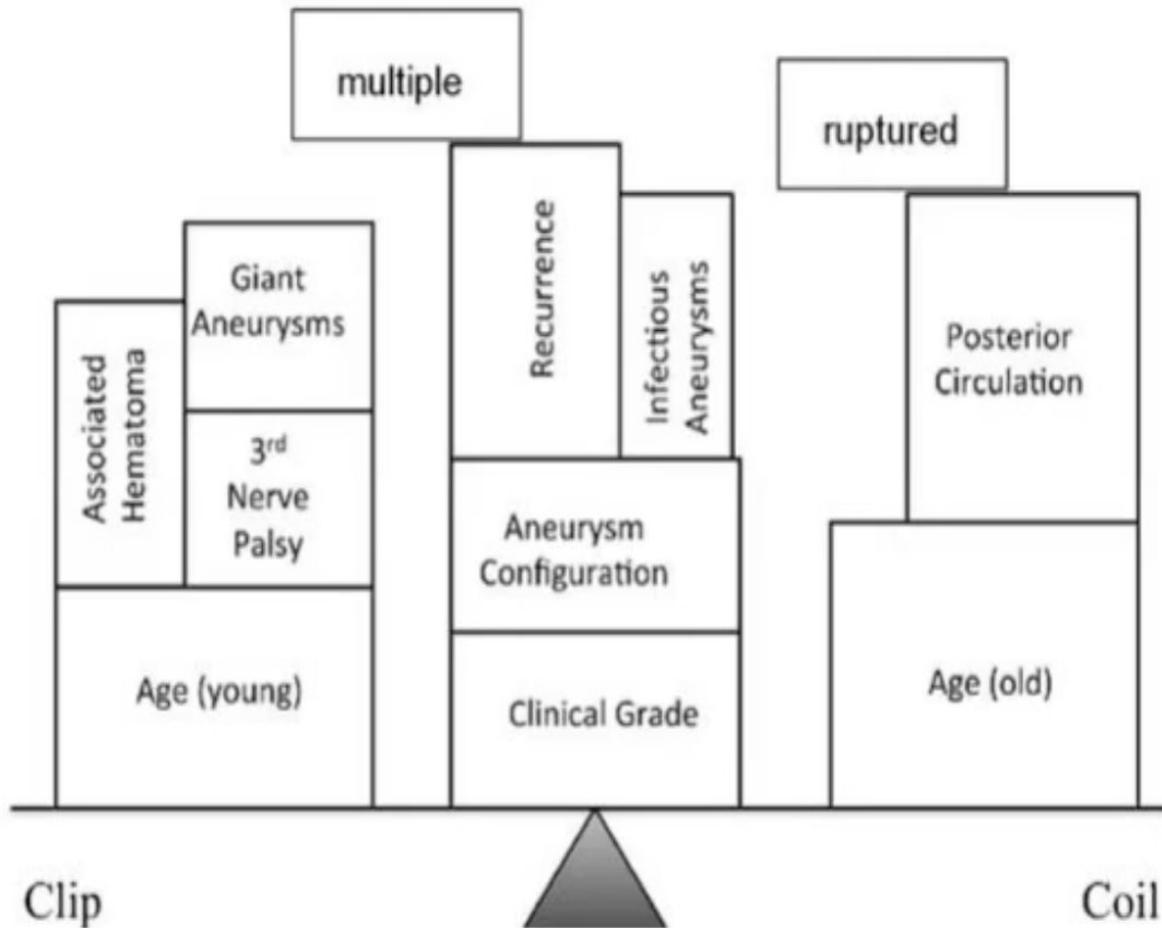


Trends in aneurysm surgery

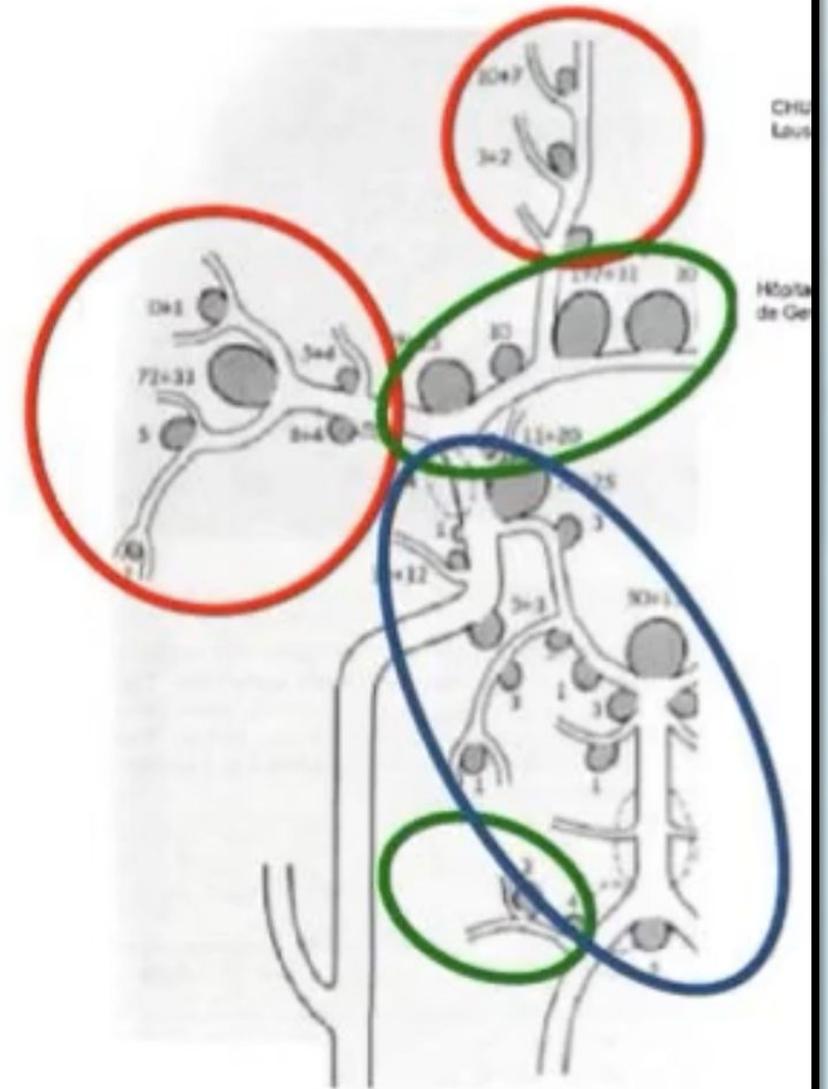


Clip vs Coil

The old debate: "Clip vs. Coil"



n=1787 aSAH (2009-2015)

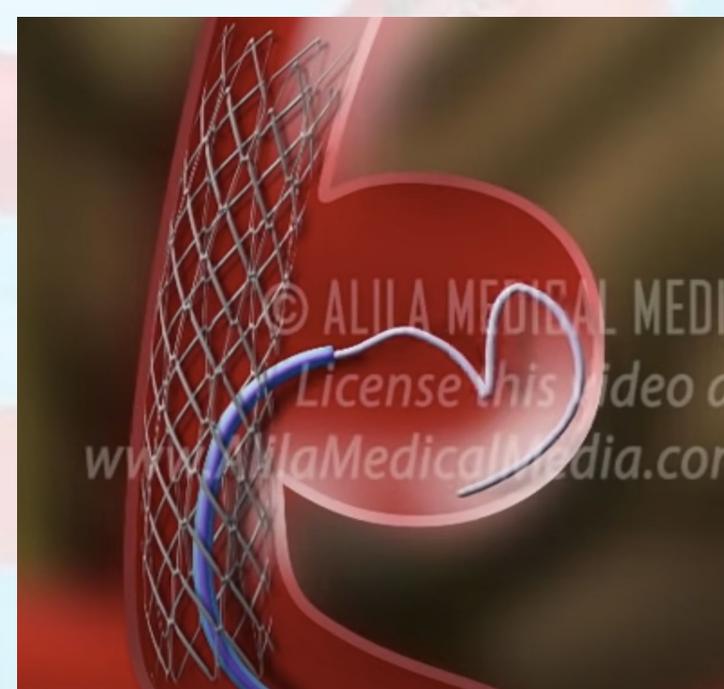
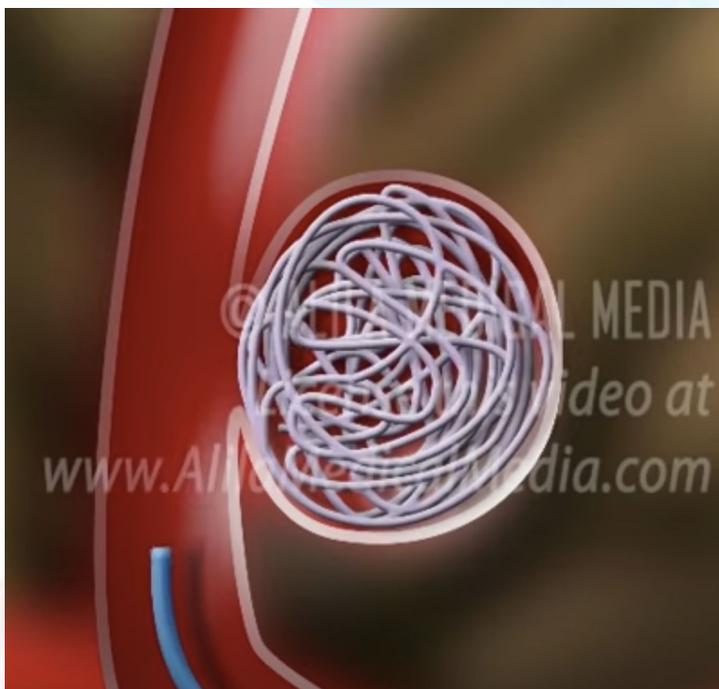
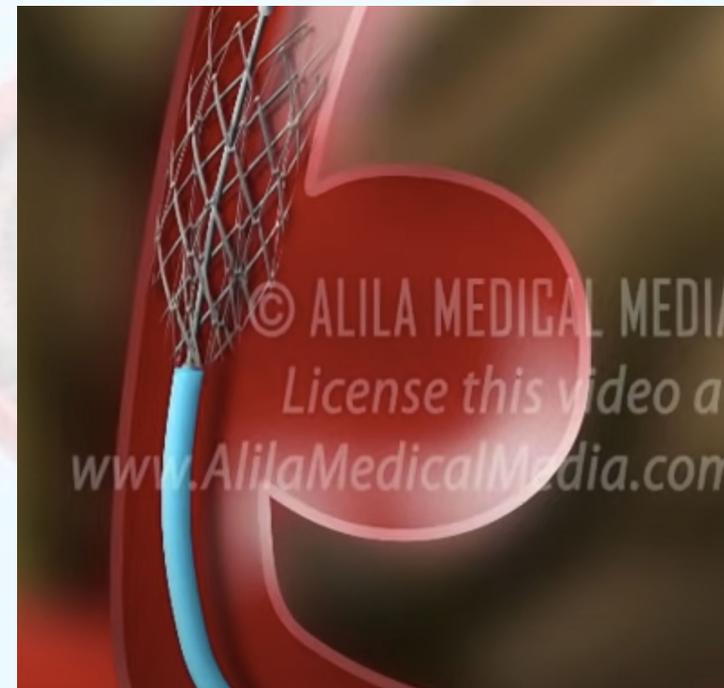
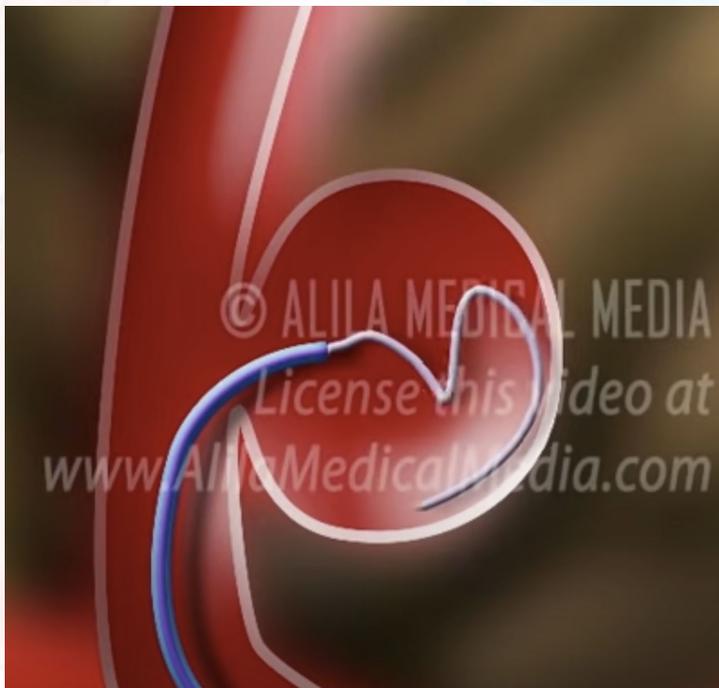


Coiling

**Эмболизация
спиралями**

**Стент/Баллон-
асистированная
эмболизация**

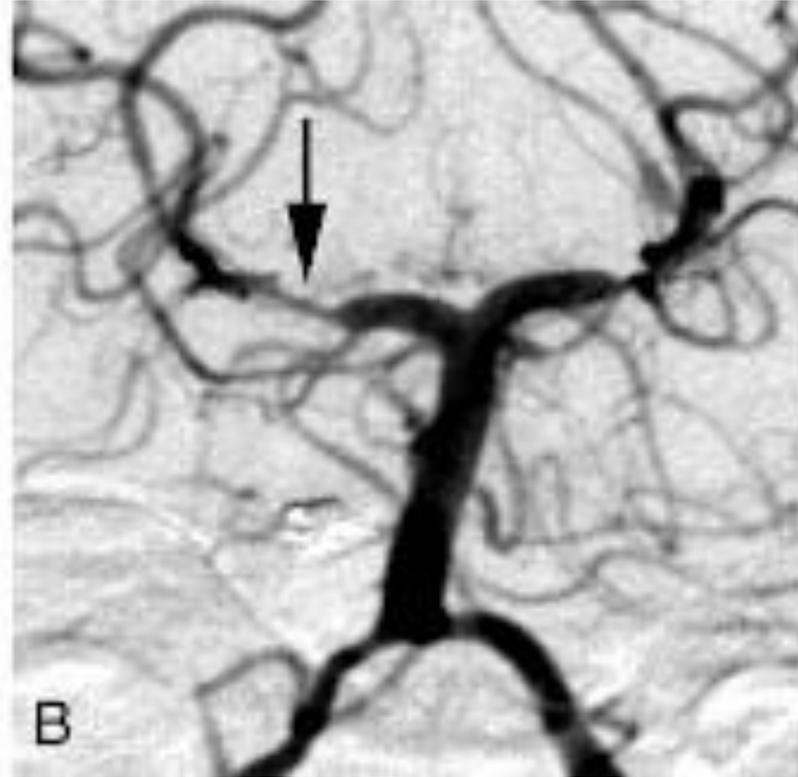
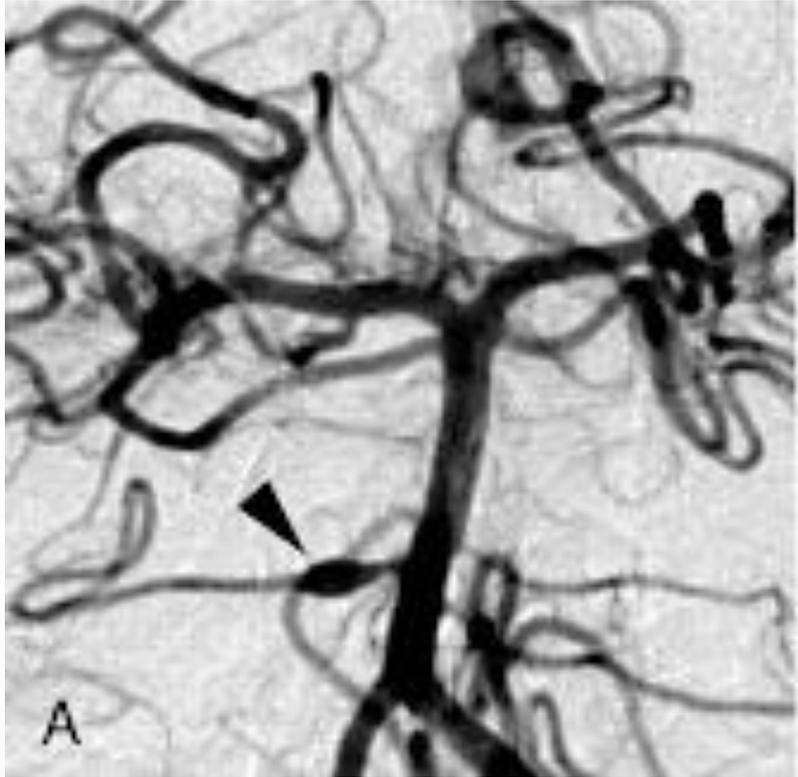
**Установка поток-
перенаправляющих
стентов (perline)**



Терапия вазоспазма

Calcium-dependent
vasoconstriction

Calcium-independent
vasoconstriction



Neurogenic factors

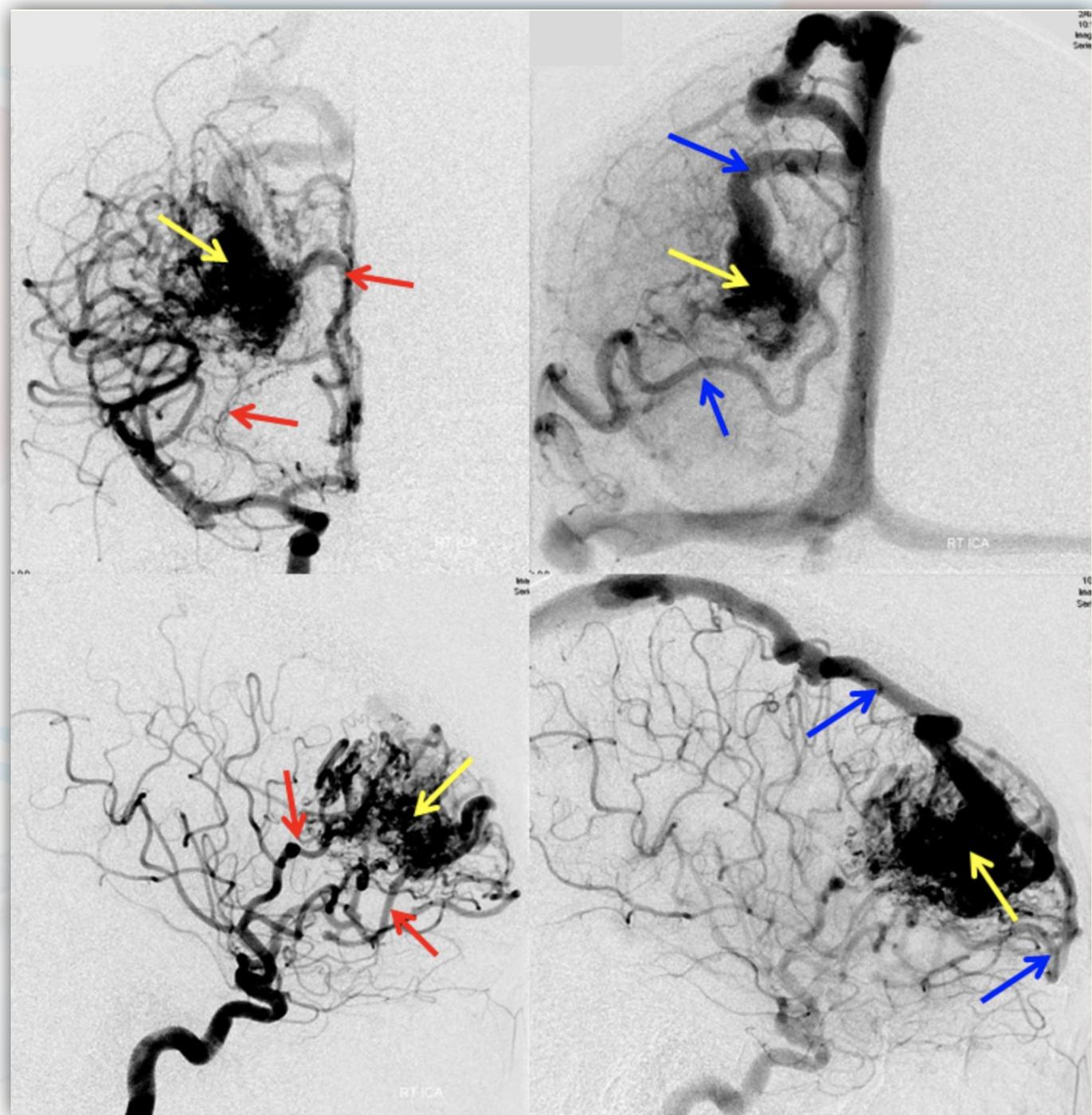
Decreased NO
availability

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

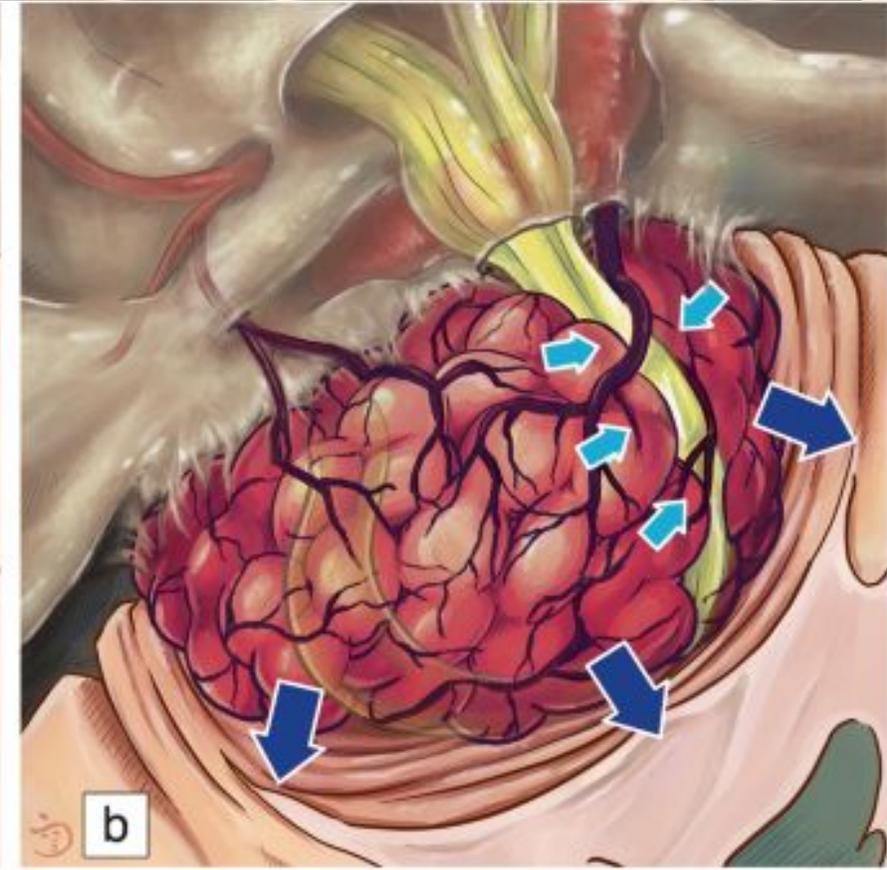
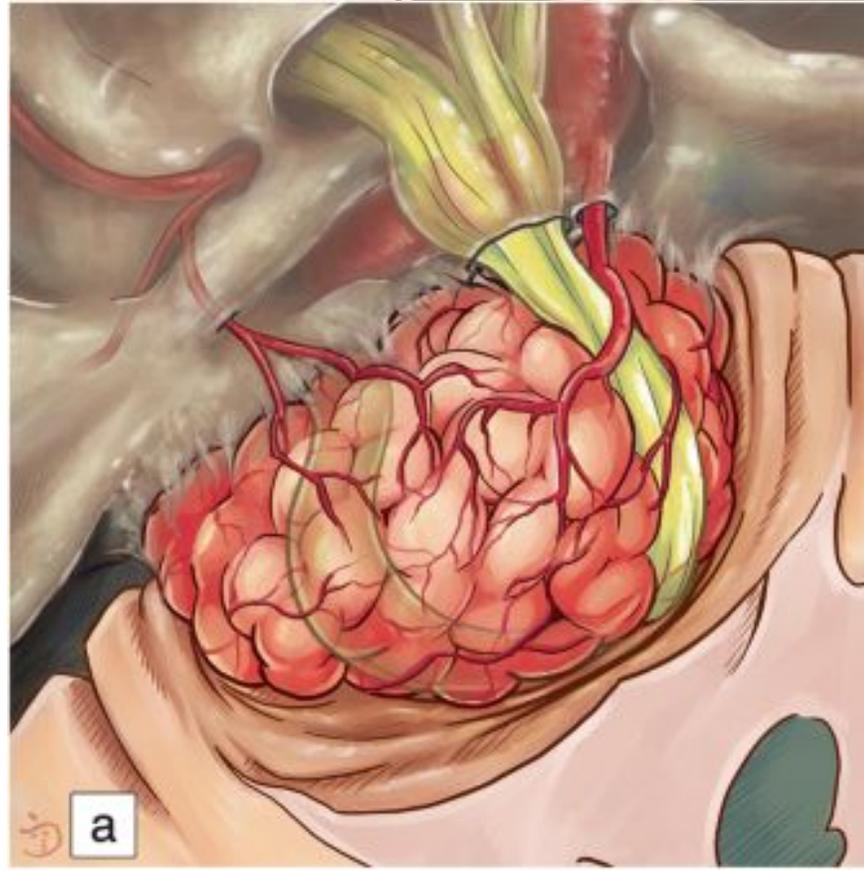
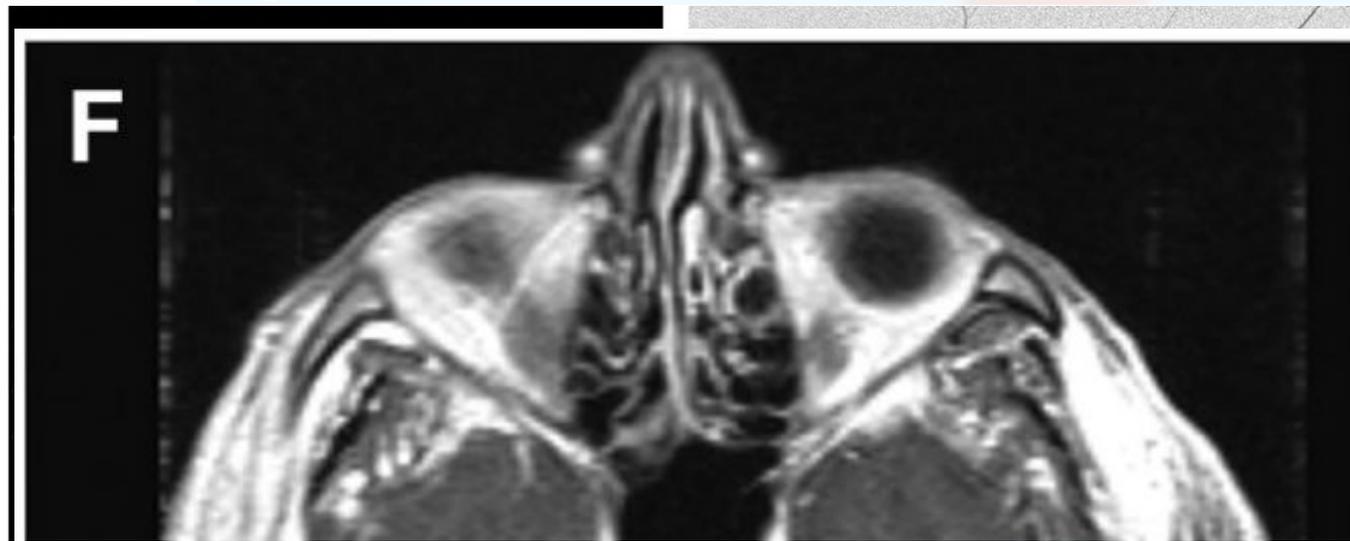
Hemangioma

Aneurysmal bone cyst

Giant cell tumor

Osteoblastoma

Metastases (renal cell, thyroid)



The background features a medical illustration. On the left, a large, reddish, spherical aneurysm is shown being treated with a silver, braided stent. A hand is visible at the bottom left, holding a similar stent. On the right, a cross-section of a blood vessel shows a stent placed inside, with a smaller aneurysm nearby. The overall scene is set against a light blue background with faint, larger-scale illustrations of the same medical components.

Спасибо за внимание

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