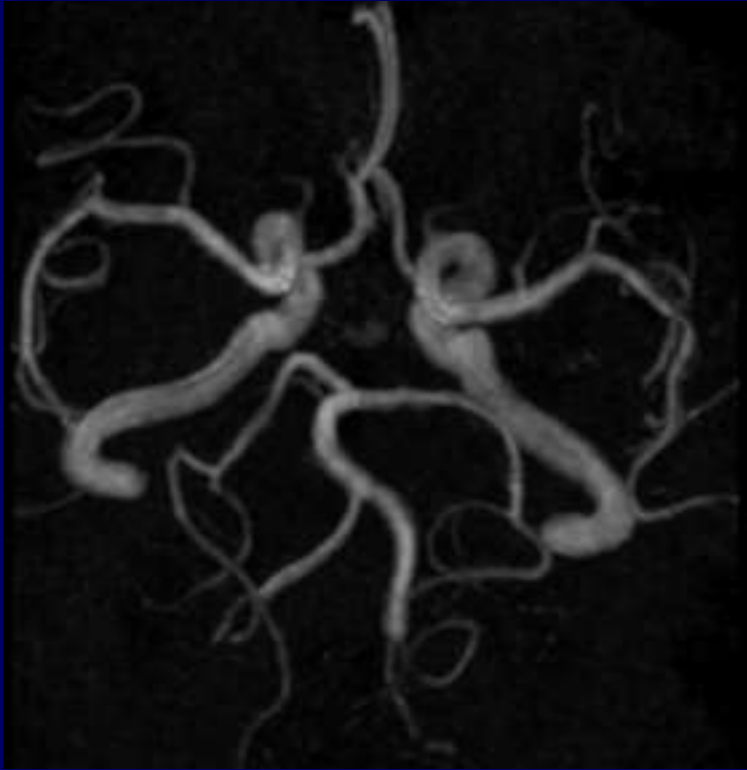


MRA a 48 ore



Modena 27 maggio 2016

Il trattamento endovascolare dell'ictus

Dott. Stefano Vallone
Neuroradiologia
Modena



A Randomized Trial of Intraarterial Treatment for
Ischemic Stroke

O.A. Berkhemer, P.S.S. Fransen, D. Beumer, L.A. van den Berg, H.F. Lingsma, A.J. Yoo, W.J. Schoné, P.J. Nederkoorn, M.J.H. Wermer, M.A.A. van Walderveen, J. Staals, J. Hofmeijer, J.A. van C G.J. Lycklama à Nijeholt, J. Boiten, P.A. Brouwer, B.J. Emmer, S.F. de Bruijn, L.C. van Dijk, L.J. K E.J. van Dijk, J. de Vries, P.L.M. de Kort, W.J.J. van Rooij, J.S.P. van den Berg, B.A.A.M. van Hasse R.J. Dallinga, M.C. Visser, J.C.J. Bot, P.C. Vroomen, O. Eshghi, T.H.C.M.L. Schreuder, R.J.J. Hei A.V. Tielbeek, H.M. den Hertog, D.G. Gerrits, R.M. van den Berg-Vos, G.B. Karas, E.W. Steyerb H.A. Marquering, M.E.S. Sprengers, S.F.M. Jenniskens, L.F.M. Beenen, R. van den Berg, P.J. W.H. van Zwam, Y.B.W.E.M. Roos, A. van der Lugt, R.J. van Oostenbrugge, C.B.L.M. Majoie, and for the MR CLEAN Investigators*

ABSTRACT

BACKGROUND

In patients with acute ischemic stroke caused by a proximal intracranial arterial occlusion, intraarterial treatment is highly effective for emergency revascularization. However, proof of a beneficial effect on functional outcome is lacking.

METHODS

We randomly assigned eligible patients to either intraarterial treatment plus usual care or usual care alone. Eligible patients had a proximal arterial occlusion in the anterior cerebral circulation that was confirmed on vessel imaging and that could be treated intraarterially within 6 hours after symptom onset. The primary outcome was the modified Rankin scale score at 90 days; this categorical scale measures functional outcome, with scores ranging from 0 (no symptoms) to 6 (death). The treatment effect was estimated with ordinal logistic regression as a common odds ratio, adjusted for prespecified prognostic factors. The adjusted common odds ratio measured the likelihood that intraarterial treatment would lead to lower modified Rankin scores, as compared with usual care alone (shift analysis).

RESULTS

We enrolled 500 patients at 16 medical centers in the Netherlands (233 assigned to intraarterial treatment and 267 to usual care alone). The mean age was 65 years (range, 23 to 96), and 445 patients (89.0%) were treated with intravenous alteplase before randomization. Retrievable stents were used in 190 of the 233 patients (81.5%) assigned to intraarterial treatment. The adjusted common odds ratio was 1.67 (95% confidence interval [CI], 1.21 to 2.30). There was an absolute difference of 13.5 percentage points (95% CI, 5.9 to 21.2) in the rate of functional independence (modified Rankin score, 0 to 2) in favor of the intervention (32.6% vs. 19.1%). There were no significant differences in mortality or the occurrence of symptomatic intracerebral hemorrhage.

CONCLUSIONS

In patients with acute ischemic stroke caused by a proximal intracranial occlusion of the anterior circulation, intraarterial treatment administered within 6 hours after stroke onset was effective and safe. (Funded by the Dutch Heart Foundation and others; MR CLEAN Netherlands Trial Registry number, NTR1804, and Current Controlled Trials number, ISRCTN10888758.)

The authors' full names, degrees, and affiliations are listed in the Appendix. Address correspondence to Dr. Dippel at the De H643, Erasmus Center, PO Box 3536, 3720 CA, the Netherlands (erasmusmc.nl).

Drs. Berkhemer, Fransen, van Zwam, and van Oostenbrugge contributed equally to this work.

*A complete list of the participating centers and investigators is provided in the Appendix.

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Trial of Intraarterial Treatment for Ischemic Stroke

D. Beumer, L.A. van den Berg, H.F. Lingsma, A.J. Berkhemer, M.A.A. van Walderveen, J. Staals, J. Hofmeijer, P.A. Brouwer, B.J. Emmer, S.F. de Bruijn, L.C. van Dijk, W.J.J. van Rooij, J.S.P. van den Berg, B.A.A.M. van Hasse, R.J. Dallinga, M.C. Visser, J.C.J. Bot, P.C. Vroomen, O. Eshghi, T.H.C.M.L. Schreuder, R.J.J. Heijboer, A.V. Tielbeek, H.M. den Hertog, D.G. Gerrits, R.M. van den Berg-Vos, G.B. Karas, E.W. Steyerb, H.A. Marquering, M.E.S. Sprengers, S.F.M. Jenniskens, L.F.M. Beenen, R. van den Berg, P.J. W.H. van Zwam, Y.B.W.E.M. Roos, A. van der Lugt, R.J. van Oostenbrugge, C.B.L.M. Majoie, and for the MR CLEAN Investigators*

ABSTRACT

Stroke caused by a proximal intracranial arterial



The NEW ENGLAND
JOURNAL of MEDICINE

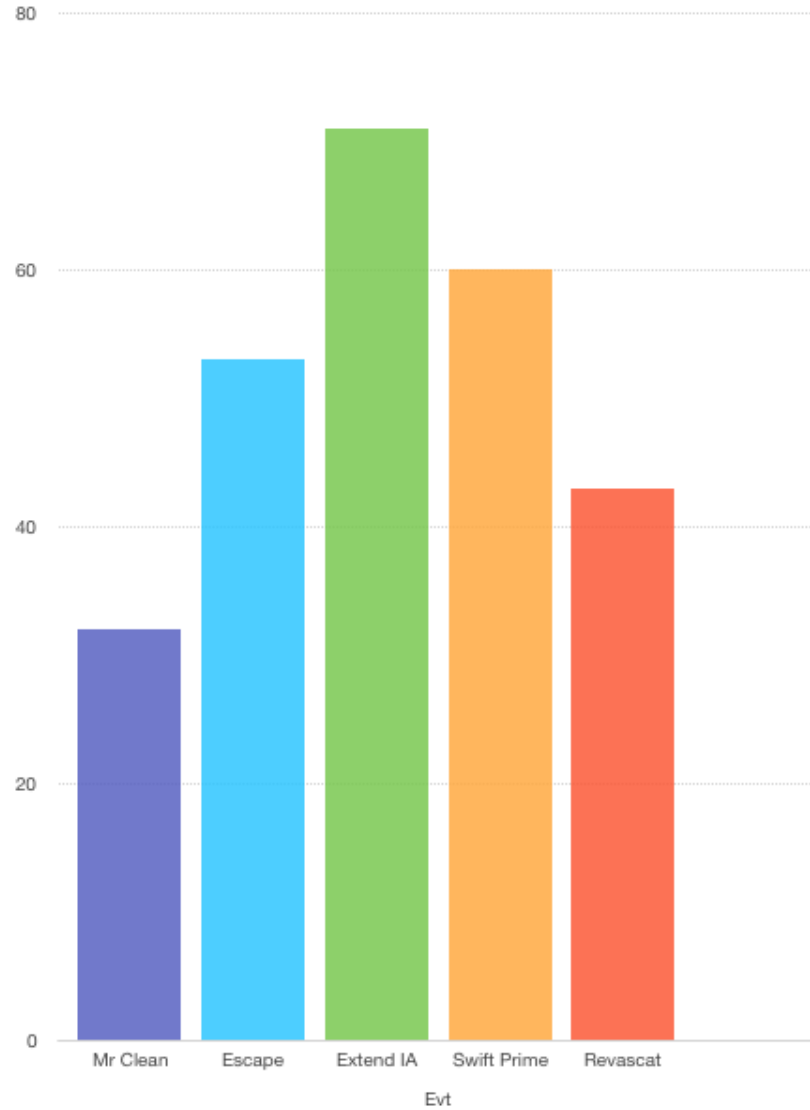
Escape 12
marzo

Extend IA 12
marzo

Swift Prime 11
giugno

- + Grafici di base
- Grafico interattivo**
- Confronto dati
- Grafico a due assi
- Grafico a dispersione
- Grafico a bolle

DESCRIZIONE	CONTROL	EVT
Mr Clean	19	32
Escape	29	53
Extend IA	40	71
Swift Prime	35	60
Revascat	28	43



Guidelines

Intravenous thrombolysis and intra-arterial interventions in acute ischemic stroke: Italian Stroke Organisation (ISO)-SPREAD guidelines

Danilo Toni^{1*}, Salvatore Mangiafico², Elio Agostoni³, Mauro Bergui⁴, Paolo Cerrato⁵, Alfonso Ciccone⁶, Stefano Vallone⁷, Andrea Zini⁸, and Domenico Inzitari⁹

Key words: guidelines, ischemic stroke, reperfusion, revascularization, thrombectomy, thrombolysis

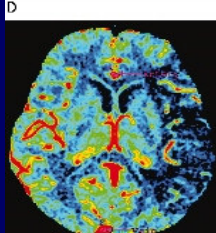
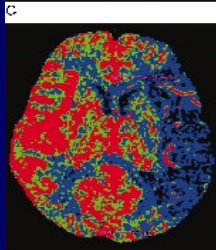
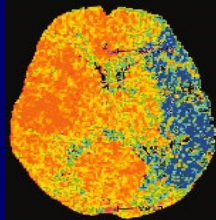
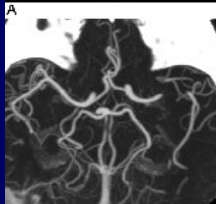
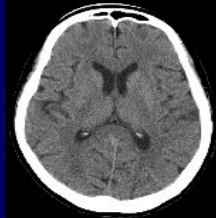
Introduction

i.v. Thrombolysis (IVT) is the most important achievement of the last 20 years in the field of ischemic stroke management. In Italy, the evidence that stroke units were effective per sé in improving stroke outcome was not sufficient to favor their implementation. Only the approval of IVT boosted the activation of stroke units, which are now 170 centers widespread over the country. The numbers of treatments, however, are still limited, amounting in 2014 to approximately 4200 out of the 10 000 which should theoretically be performed each year. Too strict exclusion criteria and/or their too restrictive interpretation are two of the main causes of this substantial undertreatment. Hence, a critical reappraisal of these criteria was necessary.

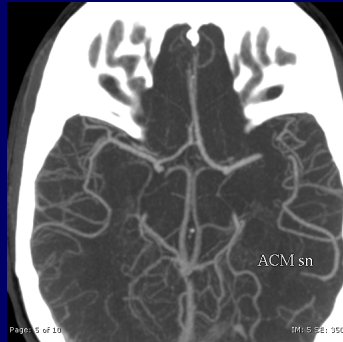
A panel of vascular neurologists (D. T., D. I., A. C., E. A., P. C., A. Z.) and of interventional neuro-radiologists (S. M., S. V., M. B.) collected the data through a systematic review of the available literature, searching electronic databases including PubMed, EMBase, OVID, and Cochrane Library, up to May 2015. Reference lists of the selected articles were also scrutinized. Each panelist was assigned individual sections, then the panel assessed the complete guidelines.

Recommendations were formulated by integrating the principles of the Scottish Intercollegiate Guideline Network with the statistical considerations suggested by the Centre for Evidence-Based Medicine methodology (Table 1). When literature data and practice experience data were not available or not considered to be sufficient, no specific recommendation was made. Consensus was reached during face-to-face discussions. In case of disagreement, a majority decision was taken.

Recommendations were then revised by a larger group of experts pertaining to the fields of trial methodology, vascular



F

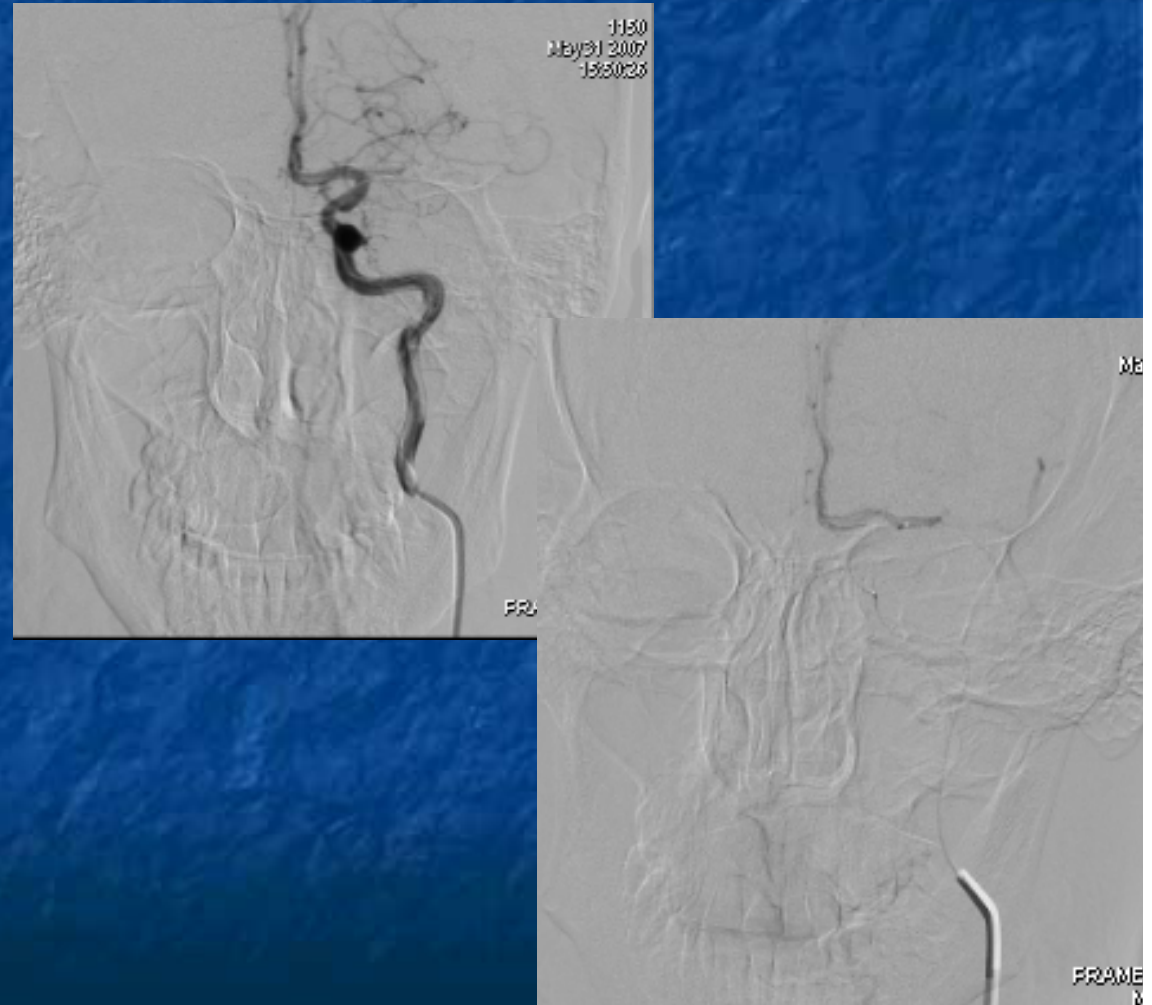
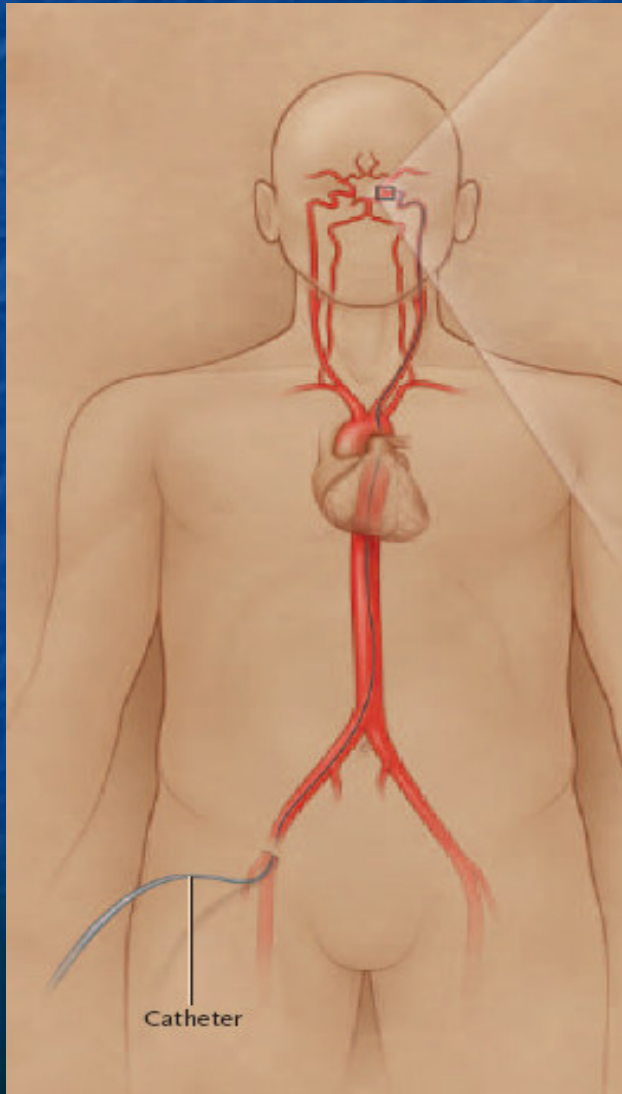


sede dell'occlusione arteriosa
>> TARGET del trattamento endovascolare

tessuto cerebrale
irreversibilmente danneggiato
core >> RISCHIO emorragico

tessuto cerebrale a rischio di

Trombolisi loco-regionale



1150
May 31 2007
15:21:55



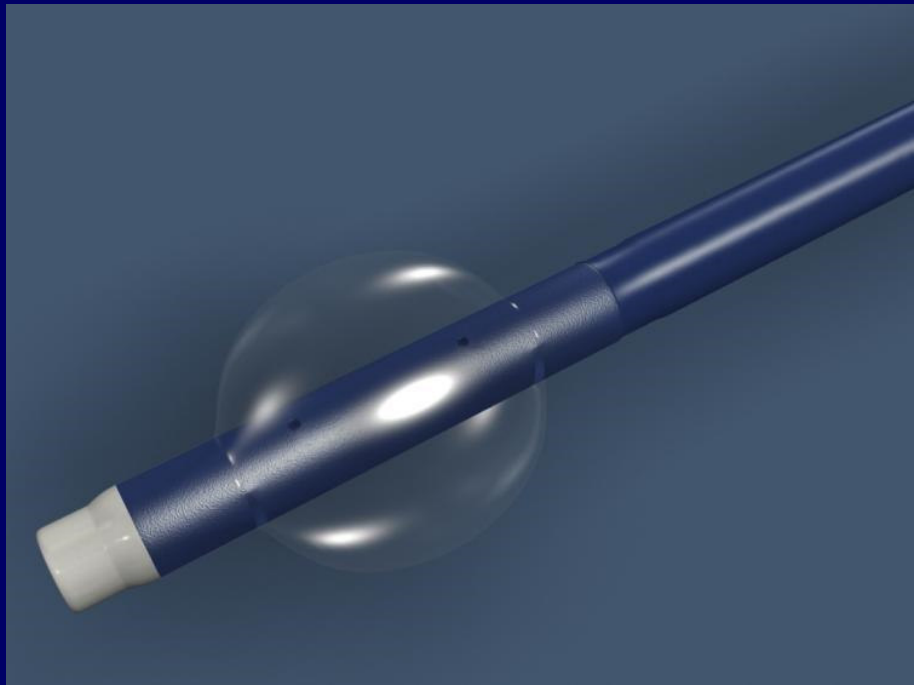
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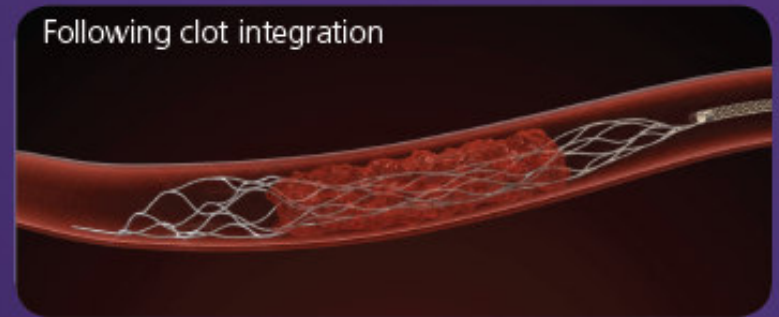
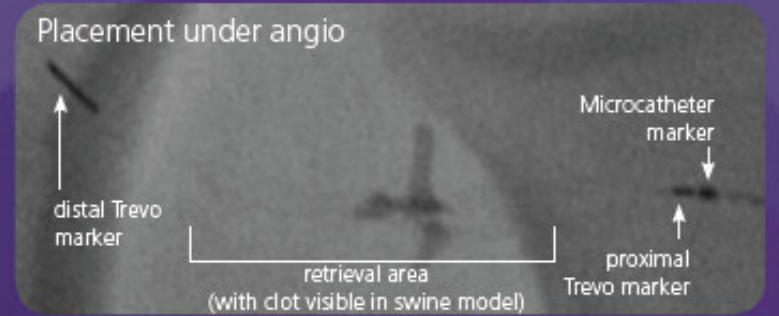
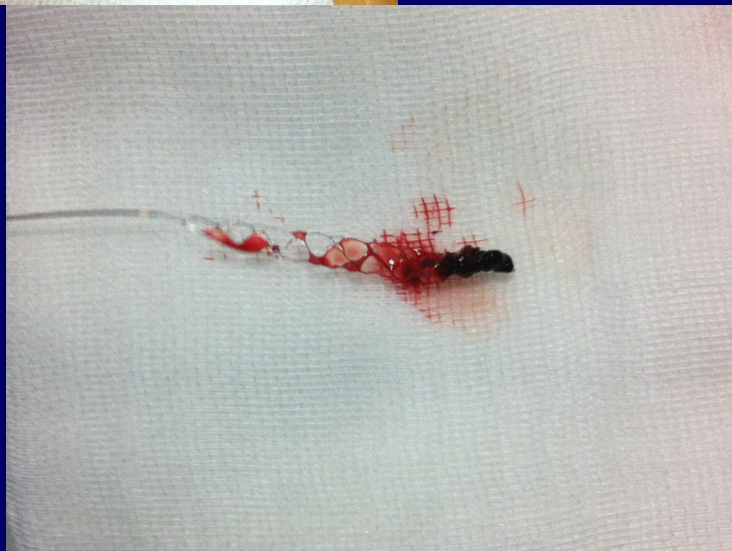
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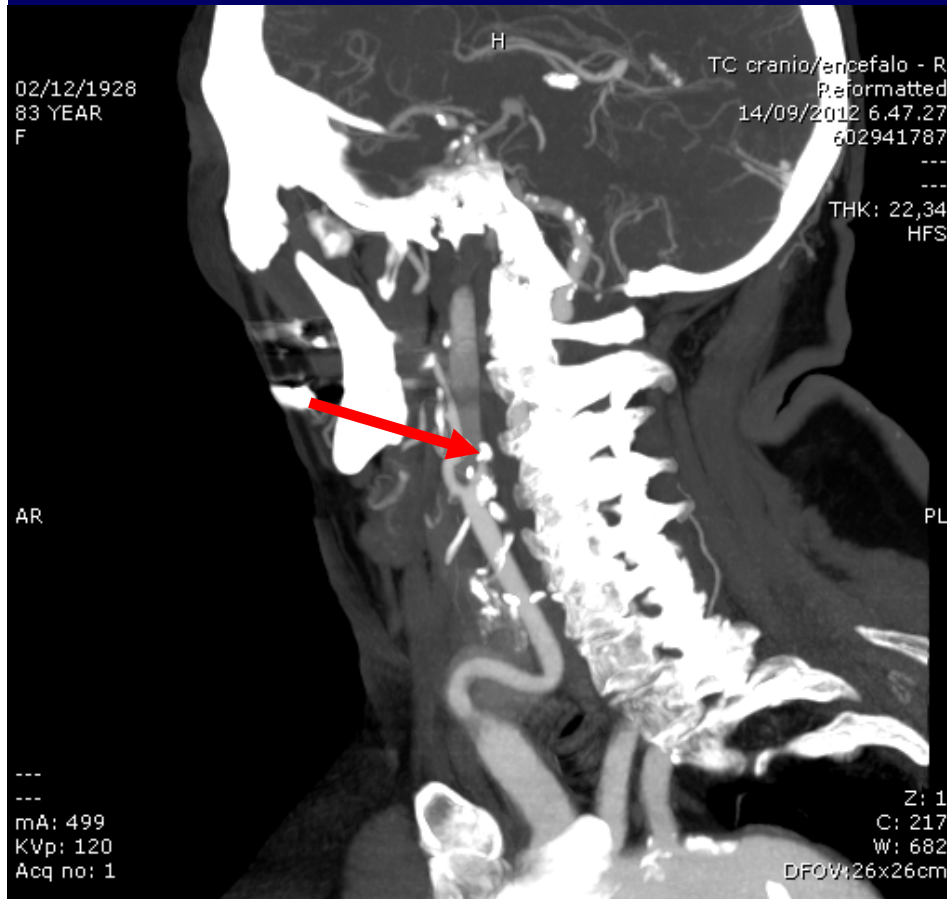
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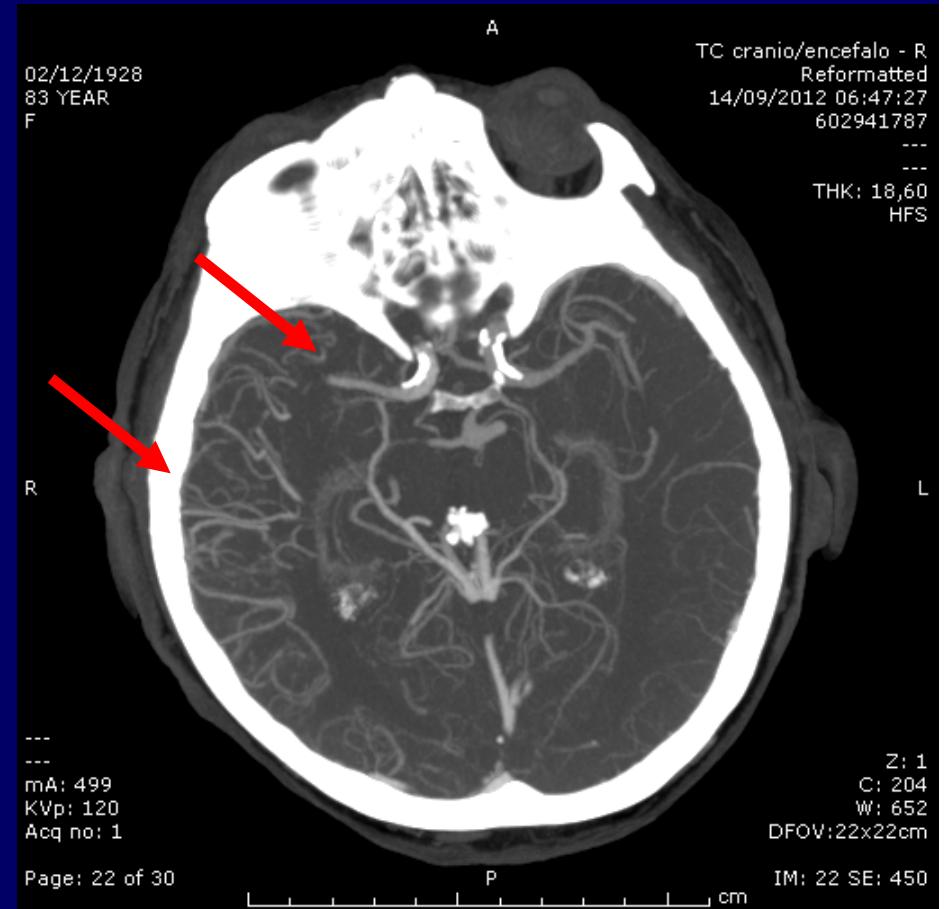
Stentriever



Angio TC vasi epiaortici e intracranici



Occlusione ICA dx
dall'origine



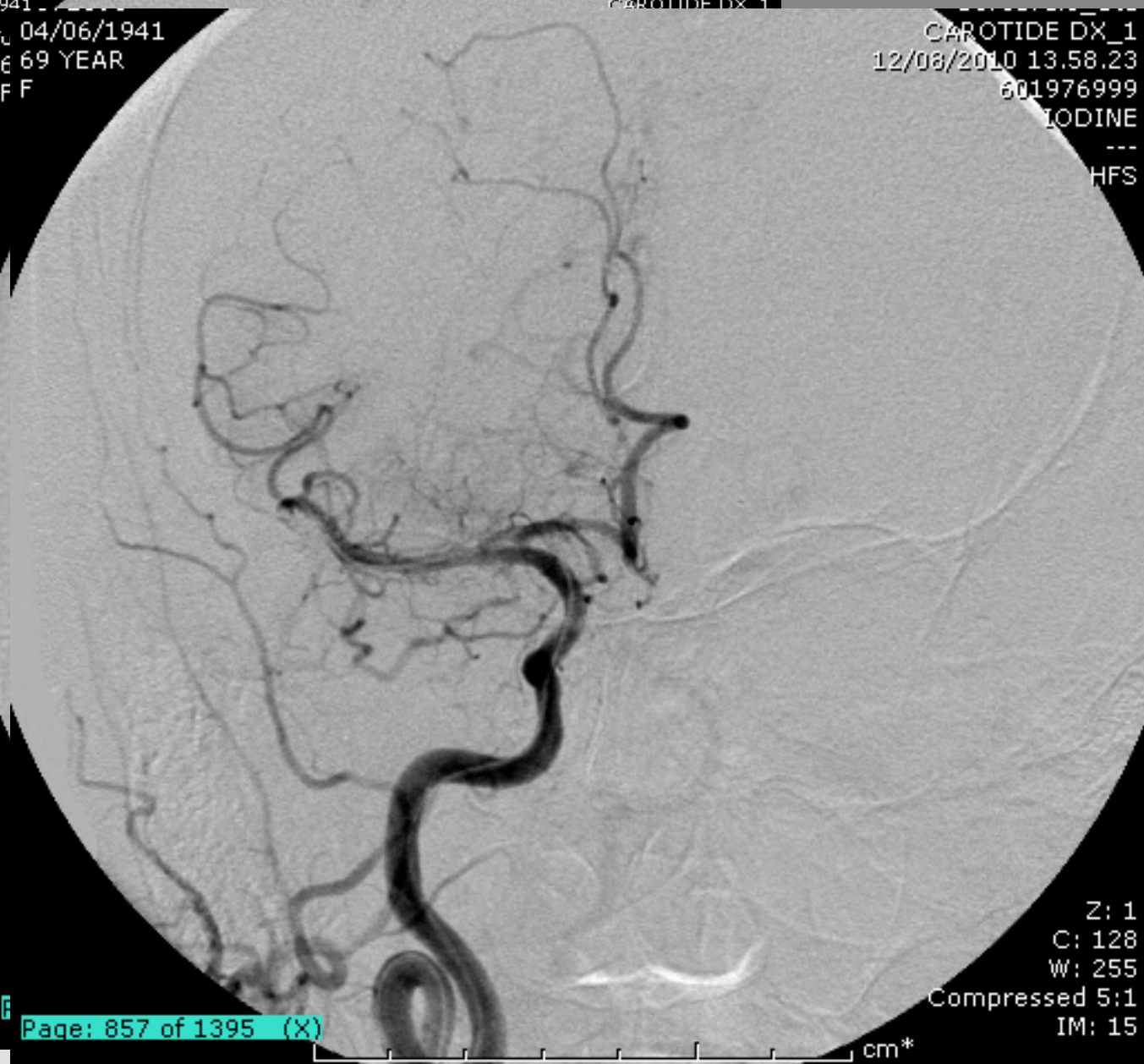
- Occlusione ACM
- Incrementata
vascolarizzazione corticale

04/06/1941
69 04/06/1941
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69 04/06/1941
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69 04/06/1941
F 69 YEAR 04/06/1941
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F

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Cerebrale_Std
CAROTIDE DX_1
Cerebrale_Std
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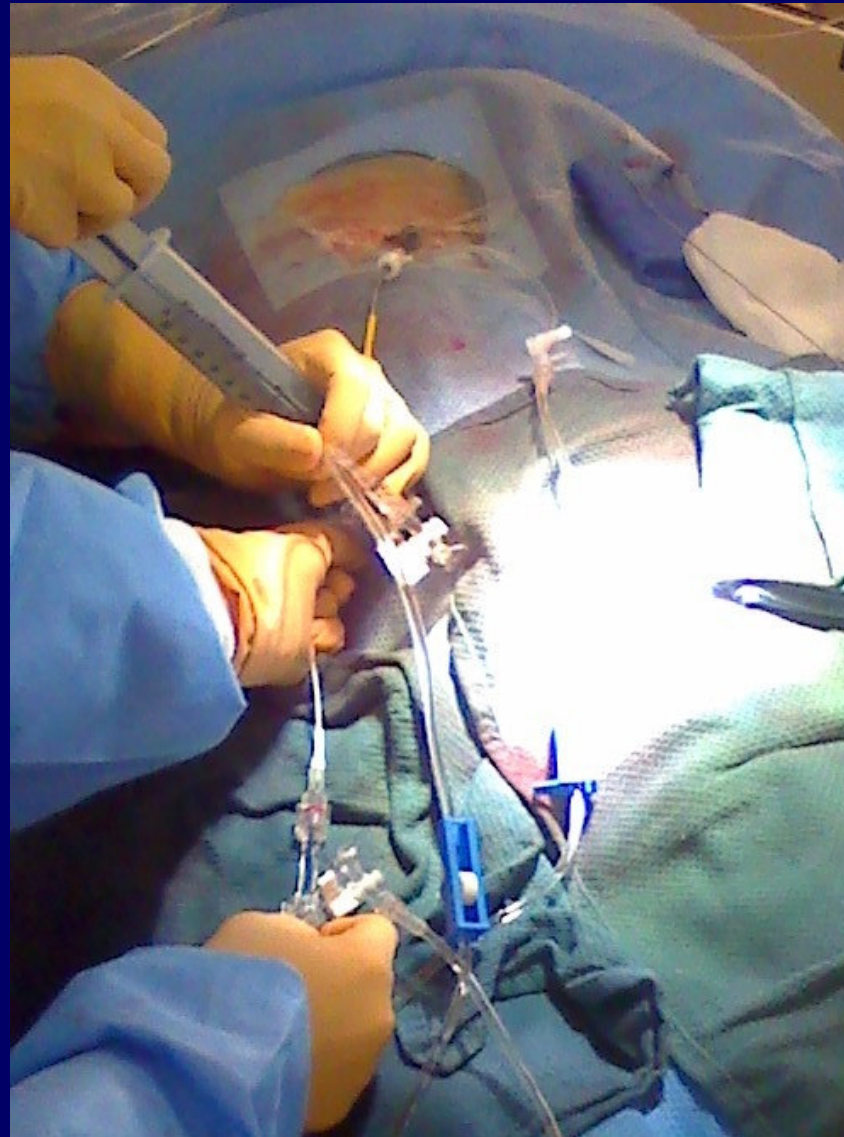


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cm*

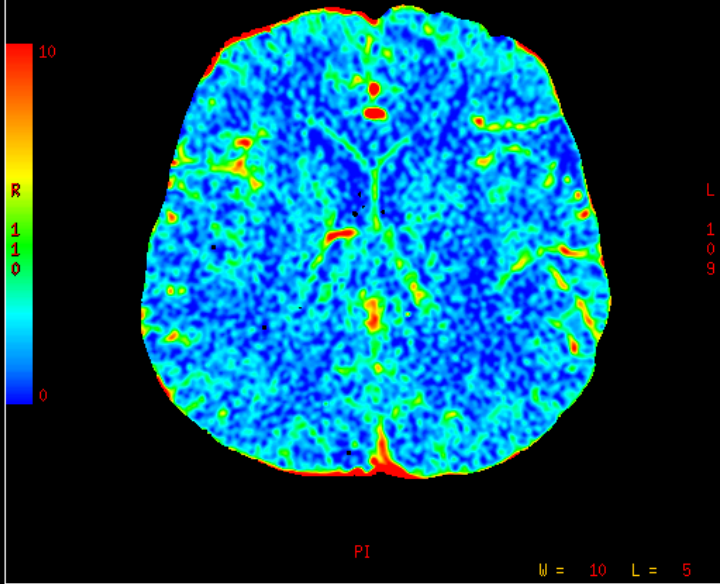


Manual aspiration

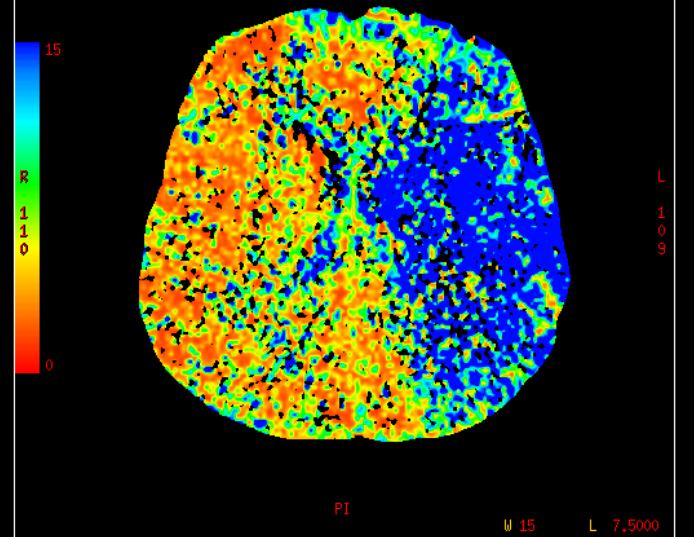




DoB: Jan 09 1947



50.4
DFOV 22.0 cm
Tempo di transito medio
DoB: Jan 09 1947



68 YEAR
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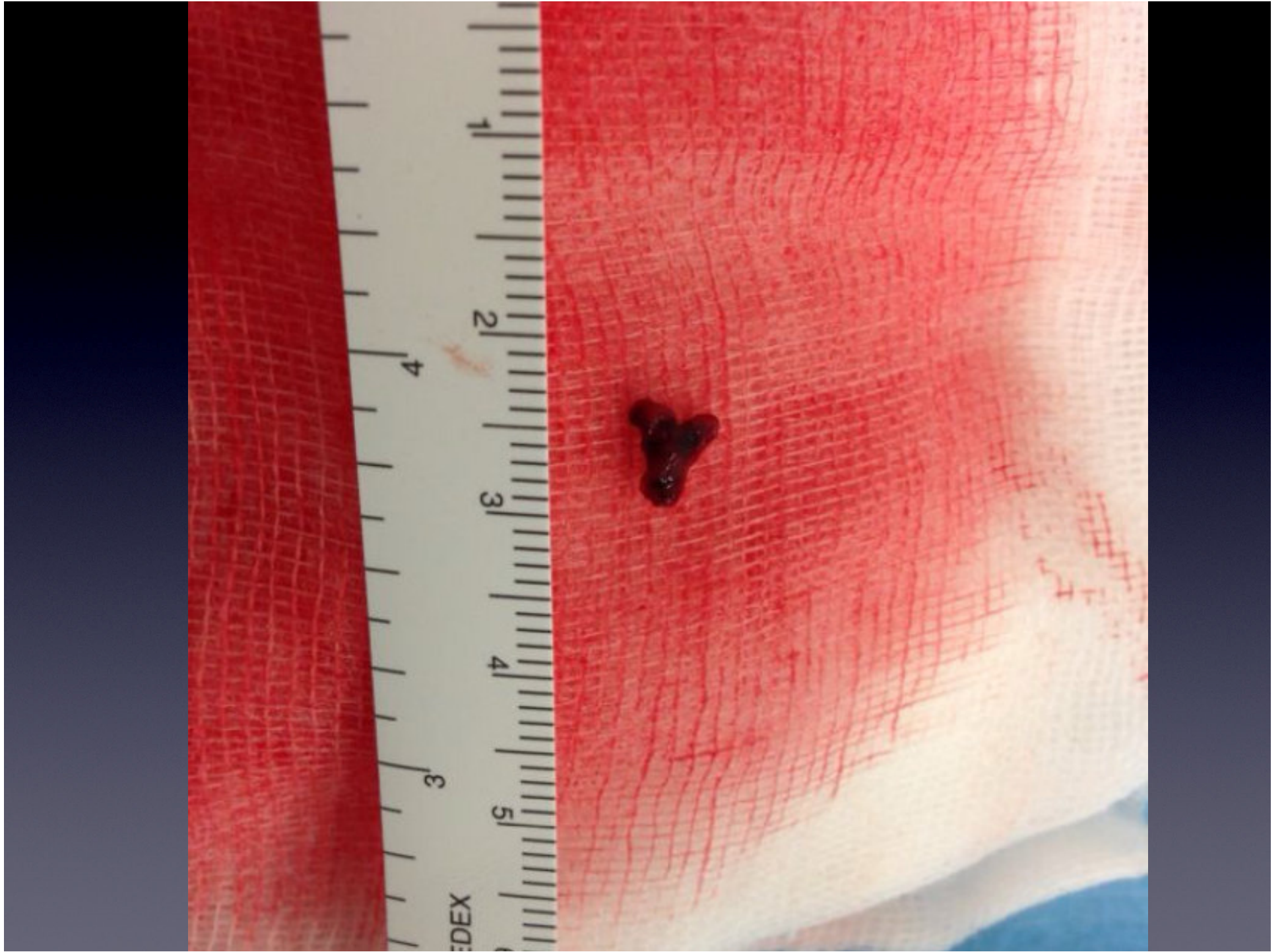
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HFS



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CAROTIDE SN

HFS

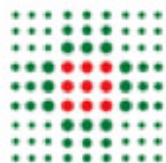
DESTRA

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Nuovo Ospedale Civile Sant'Agostino-Estense



**SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA**
Azienda Unità Sanitaria Locale di Modena





Registro Endovascolare Ictus

Centro	2011	2012	2013	2014	2015	Totale
Nuovo Ospedale Civile S. Agostino Estense Modena	25	46	54	57	66	248
AOU Careggi Firenze	35	54	56	51	42	238
Arcispedale S. Anna Ferrara	12	24	44	50	60	190
Ospedale Le Molinette Torino	8	48	40	42	45	183
AOU Senese	6	29	27	33	83	178
UTN Policlinico Tor Vergata Roma	25	34	33	19	61	172
Ospedale Niguarda Milano	8	12	20	27	43	110
Ospedale di Teramo	45	34	18			97
Policlinico G. Martino Messina				32	61	93
Spedali Civili Brescia	14	22	21	23	13	93
Policlinico Universitario Padova	10	15	21	20	22	88
AOU San Martino Genova			25	29	30	84
Ospedale San Giovanni Bosco Torino	7	12	11	24	18	72
Ospedale Maggiore Bologna	4	10	14	12	17	57
Az. Univ. Osp. di Circolo e Macchi, Varese	15	14	5	9	13	56
AOU Parma	2	6	11	15	15	49
Policlinico San Matteo Pavia	12	5	15	9	6	47
Ospedale Umberto I Mestre	10	5		14	4	33
Presidio Ospedaliero Avezzano			1	8	24	33
Azienda Ospedaliera Cosenza	3	7	10	3	8	31
Ospedale S. Corona Pietra Ligure	6	5	4	4	8	27
Ospedale San Camillo Forlanini Roma		4	6	6	11	27
Azienda Ospedaliero Universitaria Pisana	2	2	3	7	13	27
Policlinico Umberto I Roma	2	4	7	10		23
Ospedale Regionale della Valle d'Aosta	6	2	2	5	5	20
Ospedale di Lecco	7	8	5			20
Ospedale Civile Maggiore Borgo Trento Verona	5	7	4		2	18
Istituto Scientifico San Raffaele Milano					11	11

VERTEBROPLASTICA PERCUTANEA

