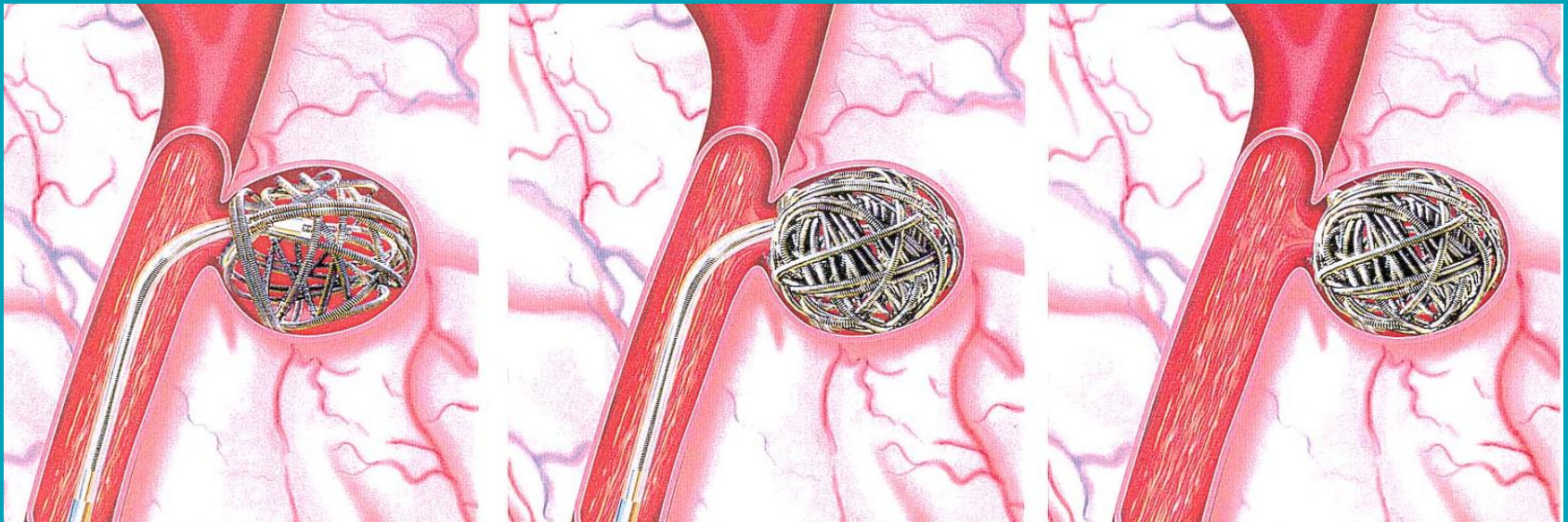




Endovasculaire behandeling cerebraal aneurysma



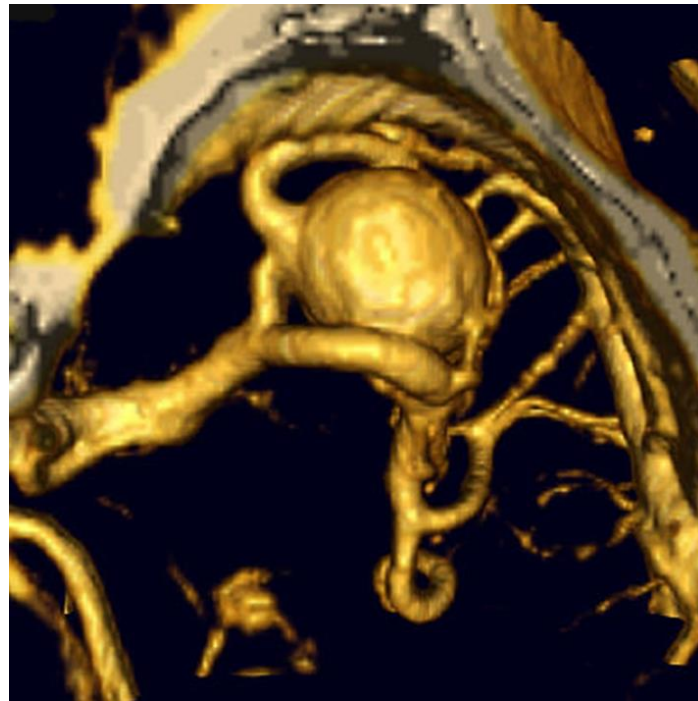
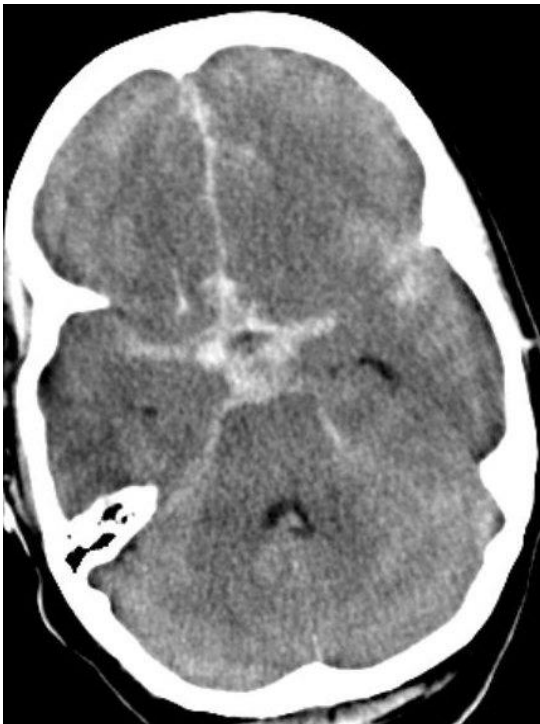
B.A.A.M. van Hasselt, radioloog

Work-up SAB

CT cerebrum

CT angiografie (vanaf aortaboog)

- Evt. Digital Subtraction Angiografie (DSA) incl. 3D



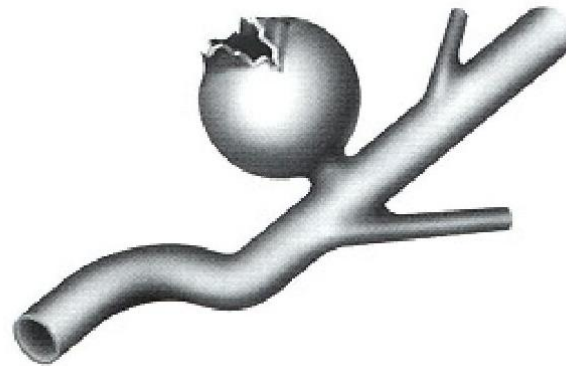
Behandeling acute gebarsten aneurysma

Coiling versus clippen (ISAT, Lancet 2002):

Rankin scale 3-6	Endovasc.	Operatief
Na 2 mnd (n=1906)	25,4% (244)	36,4% (345)
Na 1 jaar (n=1594)	23,6% (190)	30,6% (243)

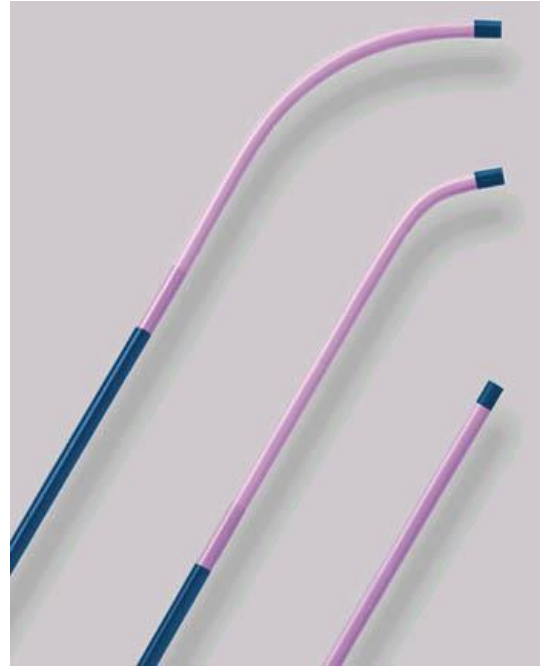
Coil of clip

- Morfologie aneurysma
 - Halsbreedte
 - Ontspringen vat
- Toegang aneurysma
 - Liesvaten
 - Halsvaten

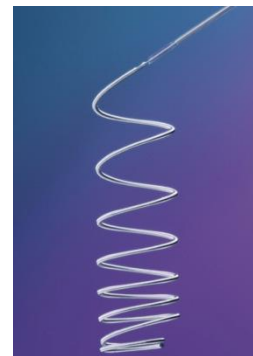
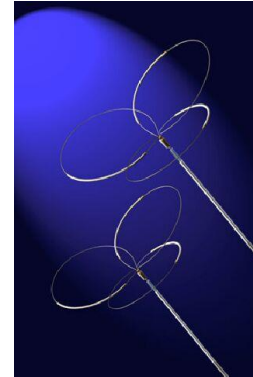


Techniek endovasculaire behandeling

- Narcose
- Guiding catheter
- Microcatheter
- Coils etc.
- +/- Heparine



Coils



WEB of Stent



Coilen

Rot: 0°
Ang: 0°
Head Side

Run Number: 5002
Volume Type: 3DRA
Run Date: 2019/08/19
Run Time: 15:19:19
Cube Size: 172.73 mm



FoV: mm
C: 127,5, W: 255,0

Coilen

Unknown

Run ID: 5000105500
5000532586
2019/08/19

Rot: 0°
Ang: 0°
Head Side

Run Number: 5002
Volume Type: 3DRA
Run Date: 2019/08/19
Run Time: 15:19:19
Cube Size: 172.73 mm

Series: 8002
Beeld 1 van 6



Coilen

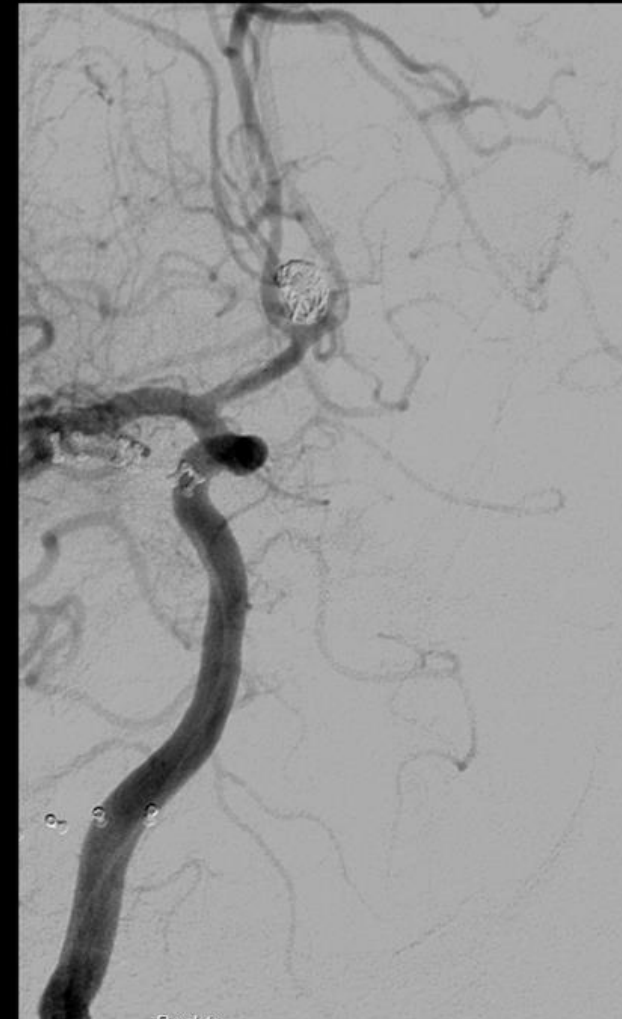
Radiologie Zw

Rot: 0°
Ang: 0°
Head Side

Run Number: 5002
Volume Type: 3DRA
Run Date: 2019/08/19
Run Time: 15:19:19
Cube Size: 172.73 mm

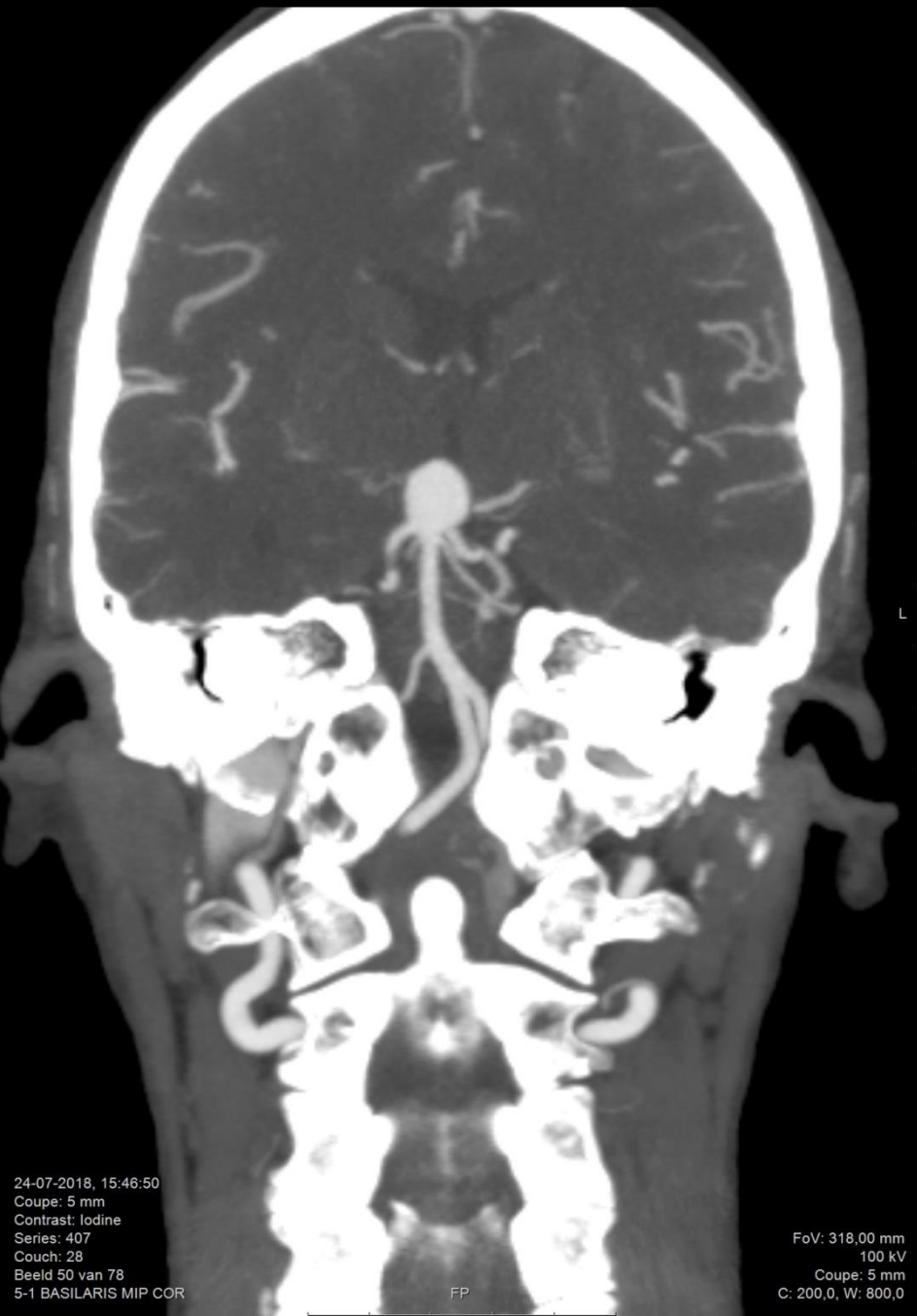


FoV: mm
C: 127,5, W: 255,0



Series: 8002
Beeld 1 van 6

Stent



24-07-2018, 15:46:50
Coupe: 5 mm
Contrast: Iodine
Series: 407
Couch: 28
Beeld 50 van 78
5-1 BASILARIS MIP COR

FoV: 318,00 mm
100 kV
Coupe: 5 mm
C: 200,0, W: 800,0



Isala klinieken Zwolle

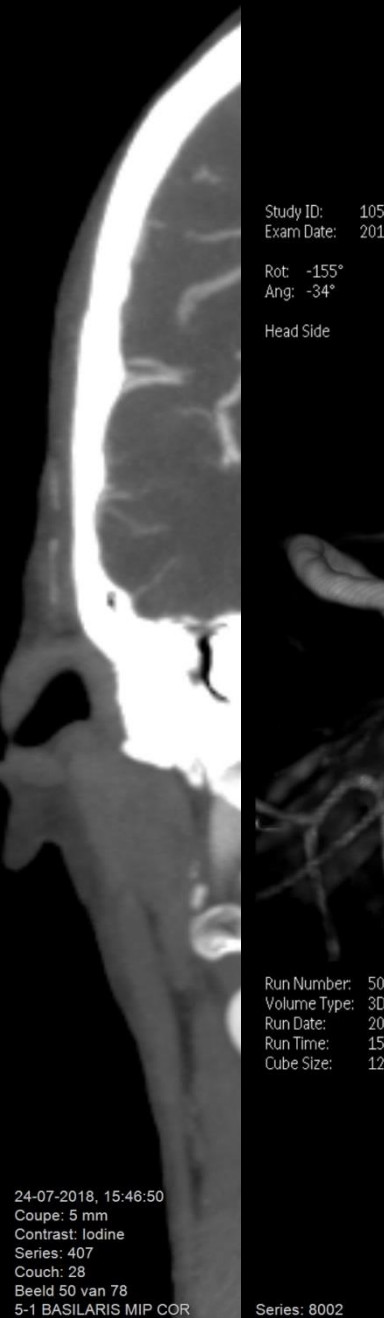


Run Number: 5002
Volume Type: 3DRA
Run Date: 2018/09/10
Run Time: 15:55:13
Cube Size: 126.41 mm

24-07-2018, 15:46:50
Coupe: 5 mm
Contrast: Iodine
Series: 407
Couch: 28
Beeld 50 van 78
5-1 BASILARIS MIP COR

Series: 8002

FoV: mm
C: 127,5, W: 255,0



Study ID: 105
Exam Date: 201

Rot: -155°
Ang: -34°

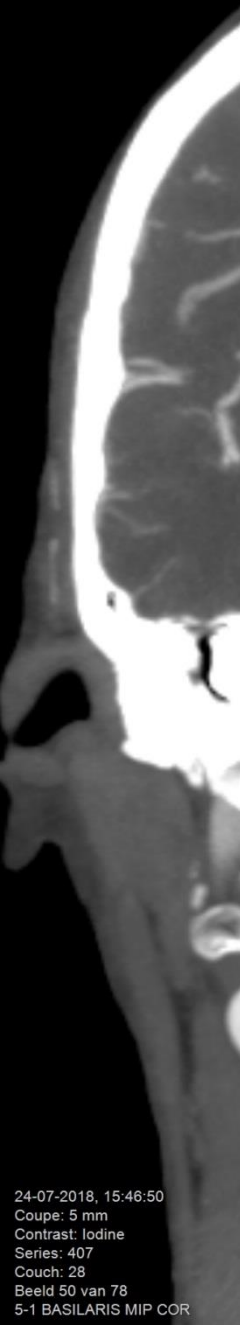
Head Side

Run Number: 50
Volume Type: 3D
Run Date: 20
Run Time: 15
Cube Size: 12



Series: 5
Beeld 6 van 16
Cerebral 2 fps

FoV: mm
C: 570,0, W: 683,0
113,3 kV



Study ID: 105
Exam Date: 201

Rot: -155°
Ang: -34°

Head Side

Run Number: 50
Volume Type: 3D
Run Date: 20
Run Time: 15
Cube Size: 12



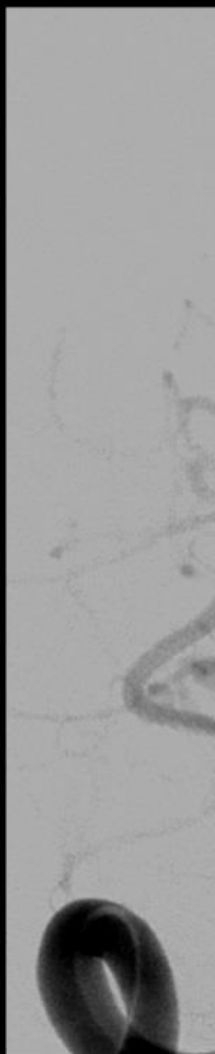
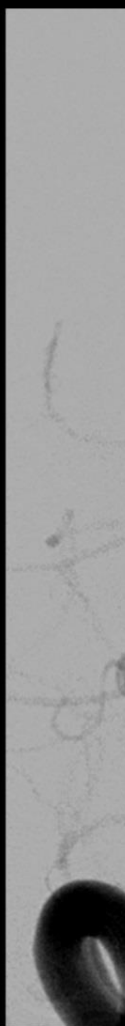


Study ID: 105
Exam Date: 201

Rot: -155°
Ang: -34°

Head Side

Run Number: 50
Volume Type: 3D
Run Date: 20
Run Time: 15
Cube Size: 12



Links

24-07-2018, 15:46:50
Coupe: 5 mm
Contrast: Iodine
Series: 407
Couch: 28
Beeld 50 van 78
5-1 BASILARIS MIP COR

Series: 8002

Series: 5
Beeld 6 van 16
Cerebral 2 fps

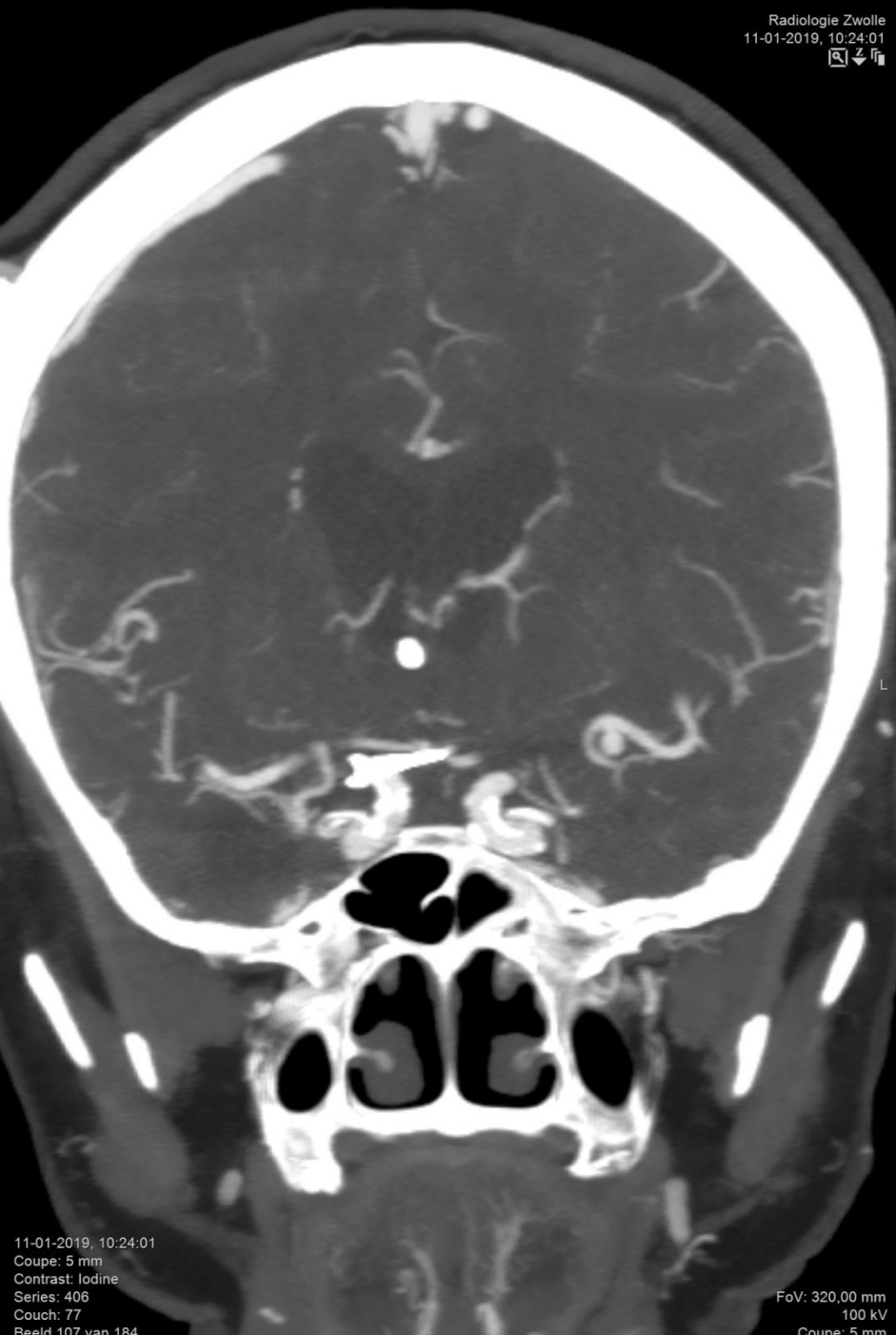
Series: 7
Beeld 6 van 11
Cerebral 2 fps

Series: 18
Beeld 7 van 15
Cerebral 2 fps

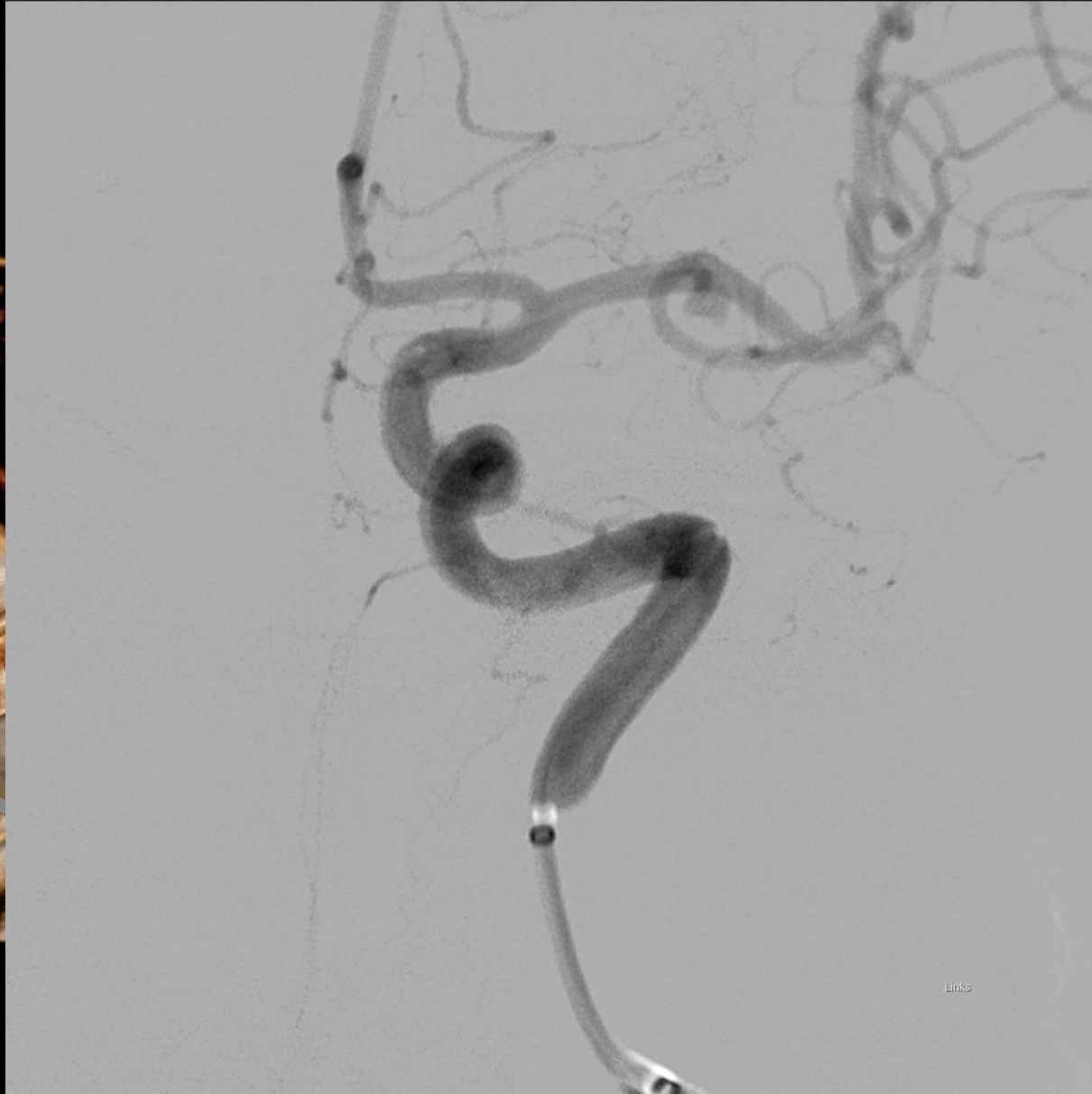
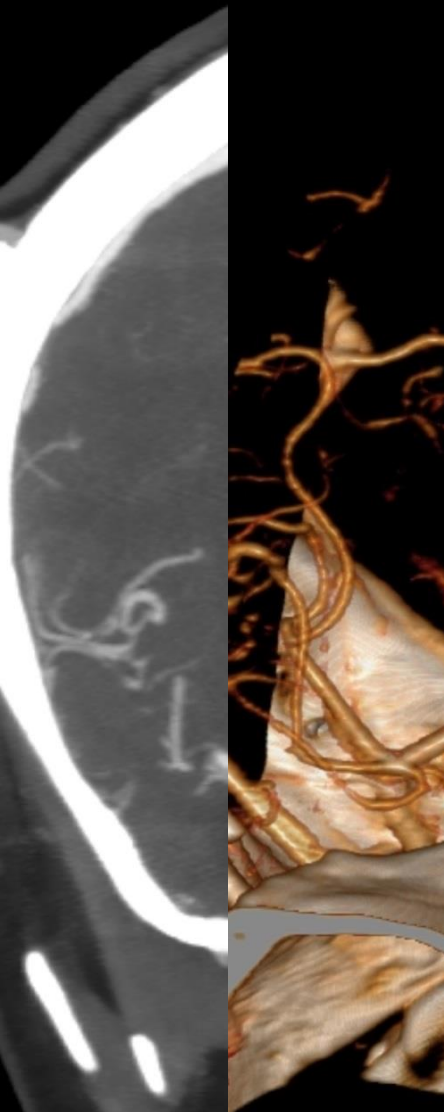
FoV: mm
C: 570,0, W: 683,0
119 kV

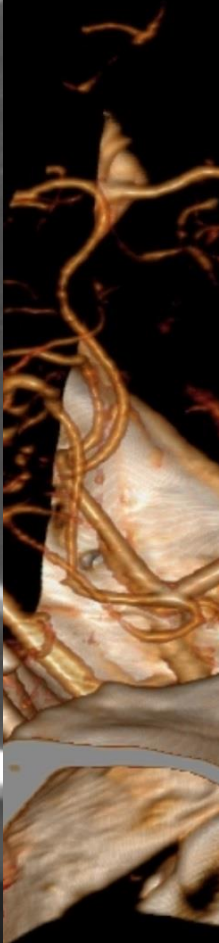
FoV: mm
C: 570,0, W: 683,0
119,8 kV

WEB









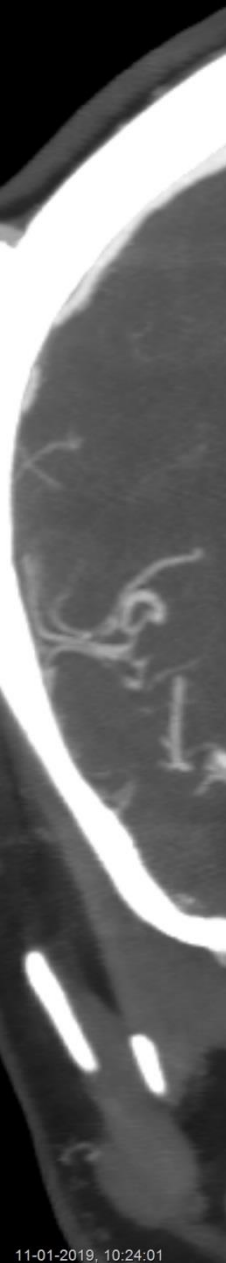
11-01-2019, 10:24:01
Coupe: 5 mm
Contrast: Iodine
Series: 406
Couch: 77
Beeld 107 van 184

11-01-2019, 14:35:53
Contrast: Iodine
Series: 4013
Beeld 12 van 160

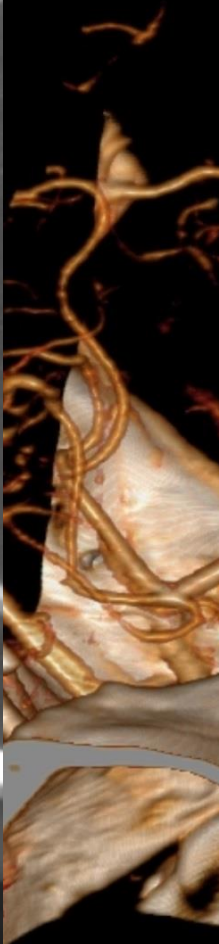
Series: 5
Beeld 8 van 12

Series: 7

FoV: mm
C: 509.0, W: 883.0



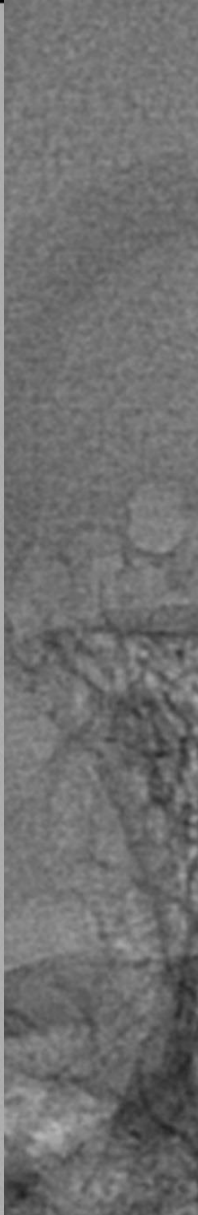
11-01-2019, 10:24:01
Coupe: 5 mm
Contrast: Iodine
Series: 406
Couch: 77
Beeld 107 van 184



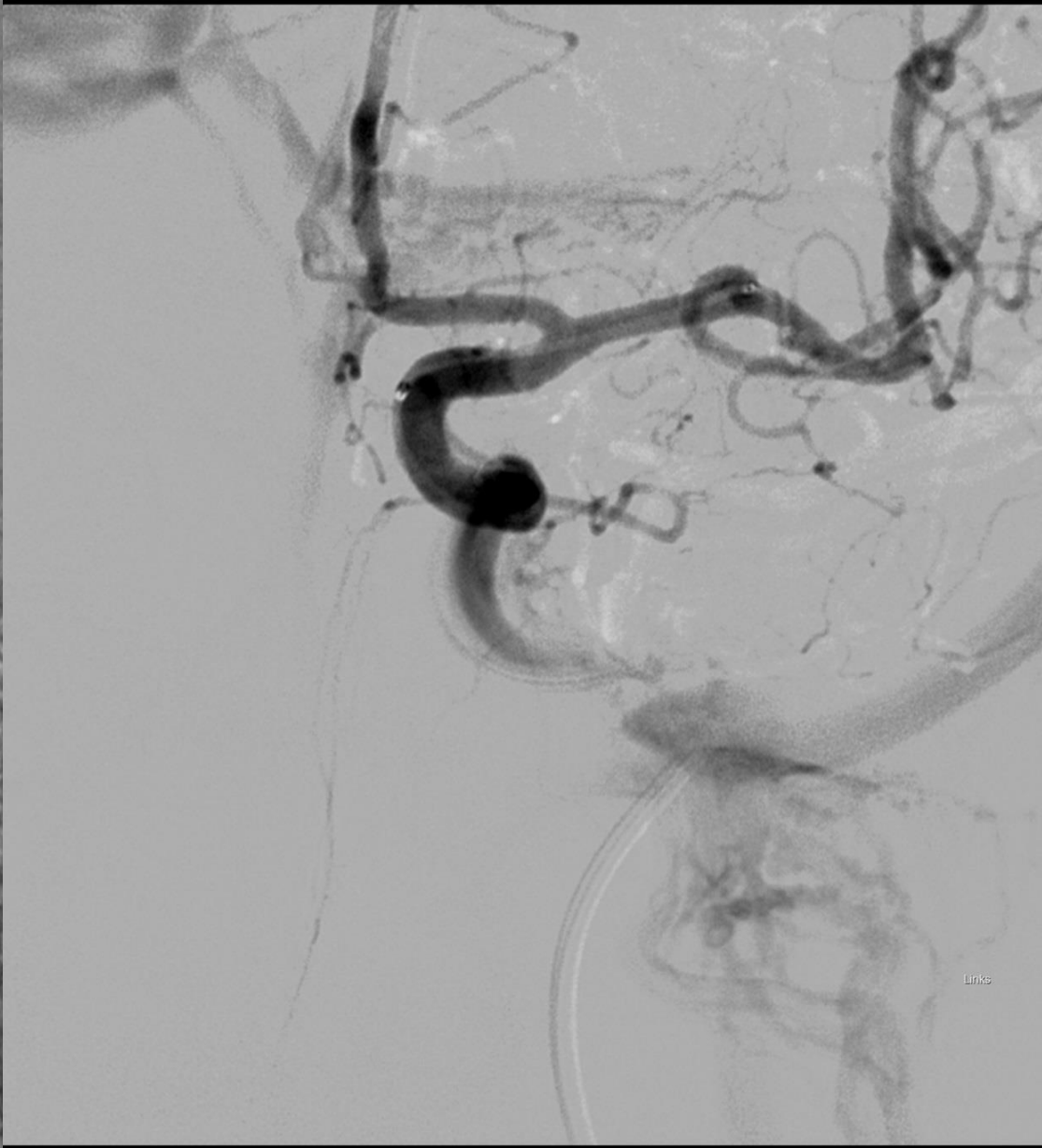
11-01-2019, 14:35:53
Contrast: Iodine
Series: 4013
Beeld 12 van 160



Series: 5
Beeld 8 van 12



Series: 7



Series: 15
Beeld 6 van 9

Links

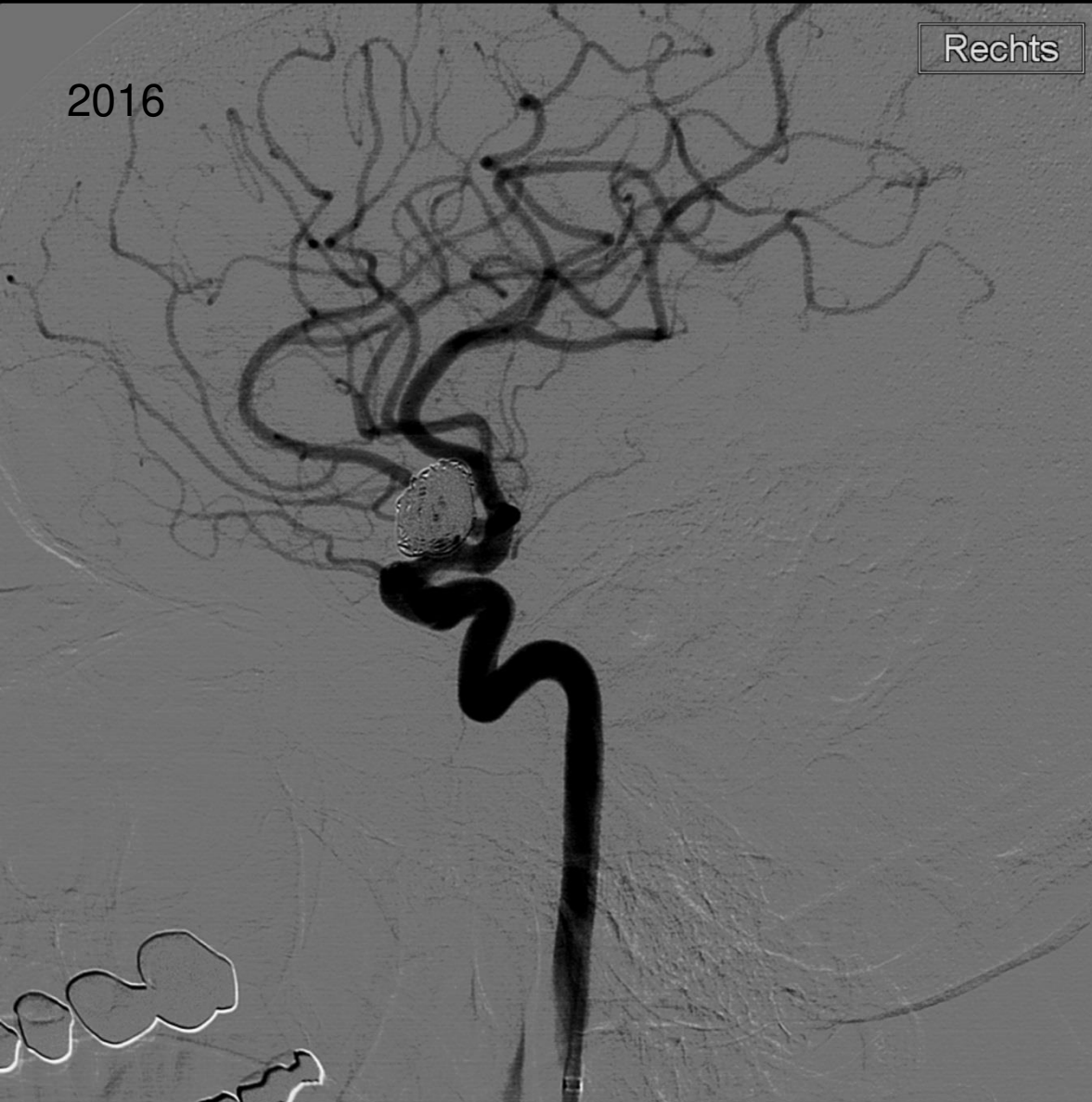
C: 570



2016

Rechts

Flowdiverter



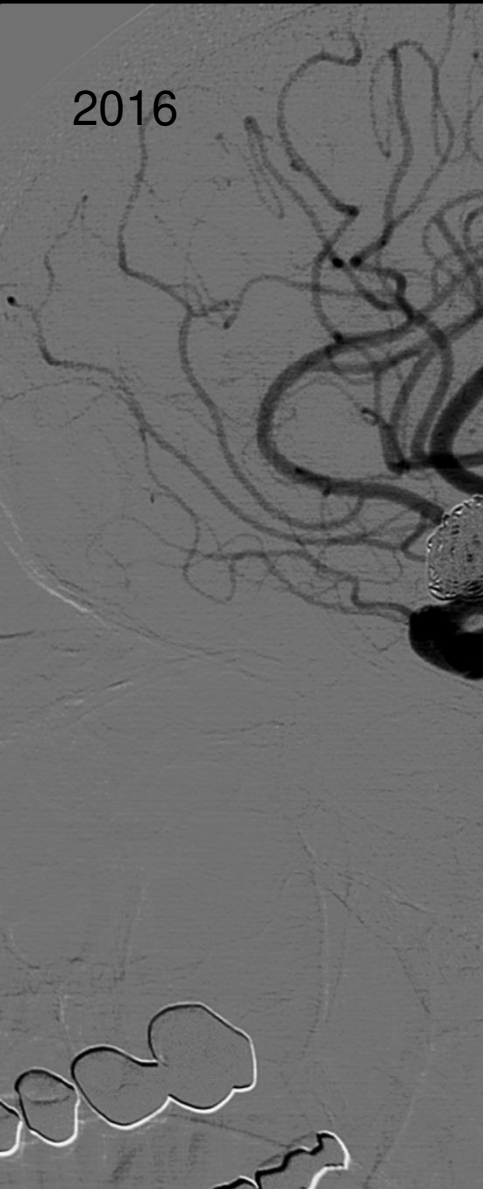
2016



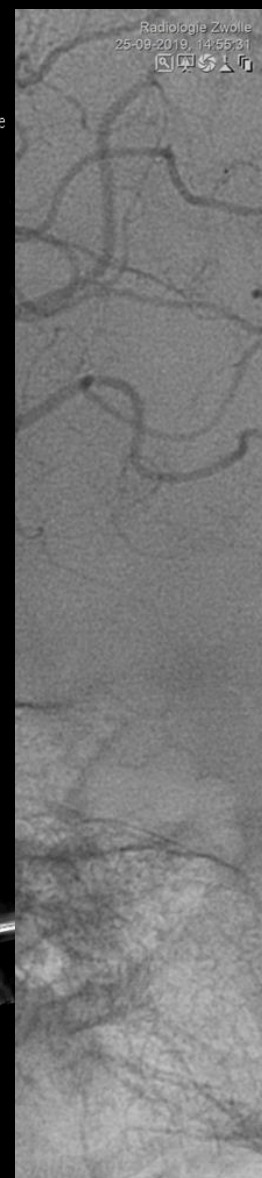
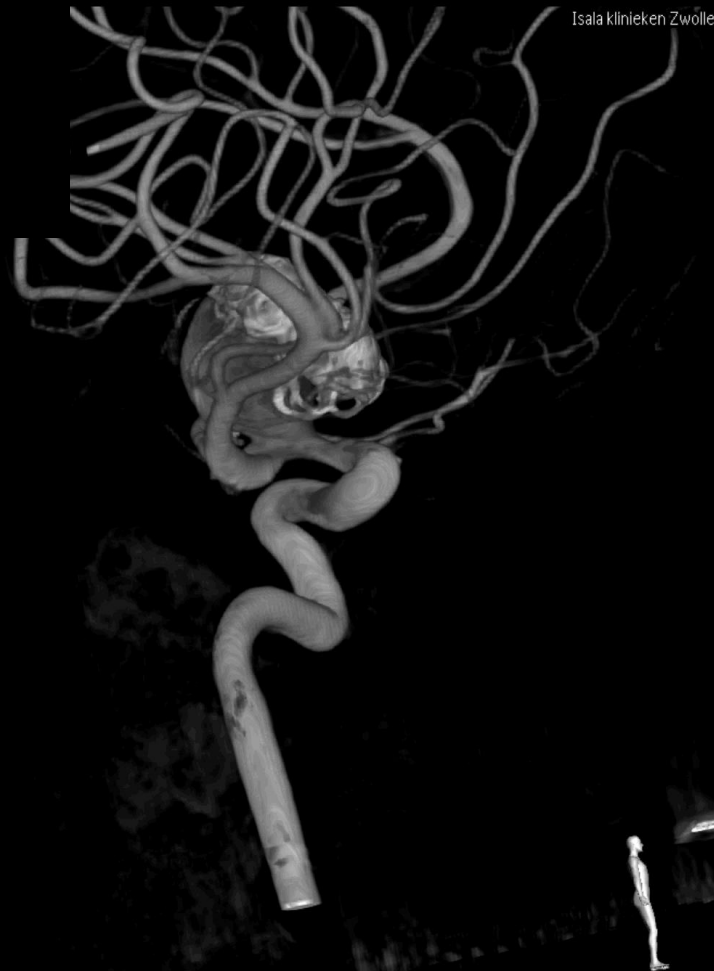
2019

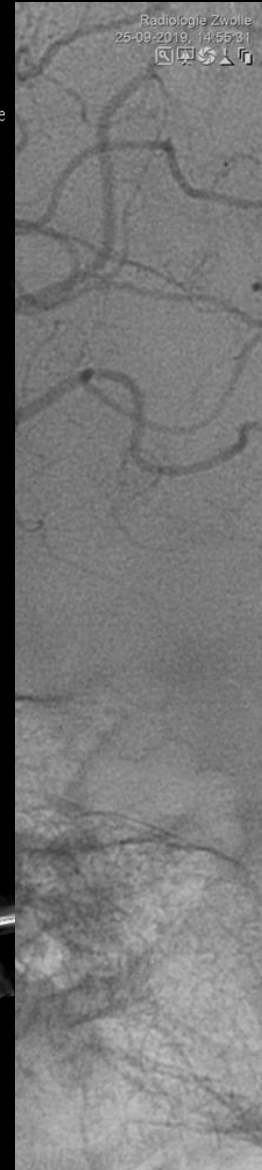
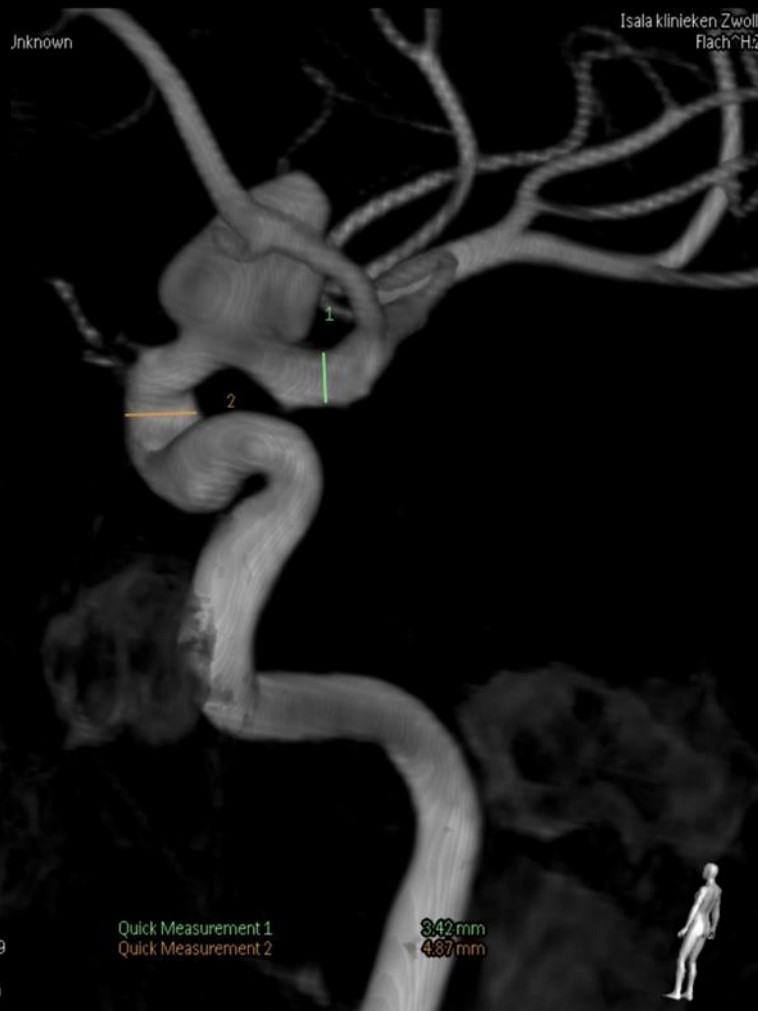


2016

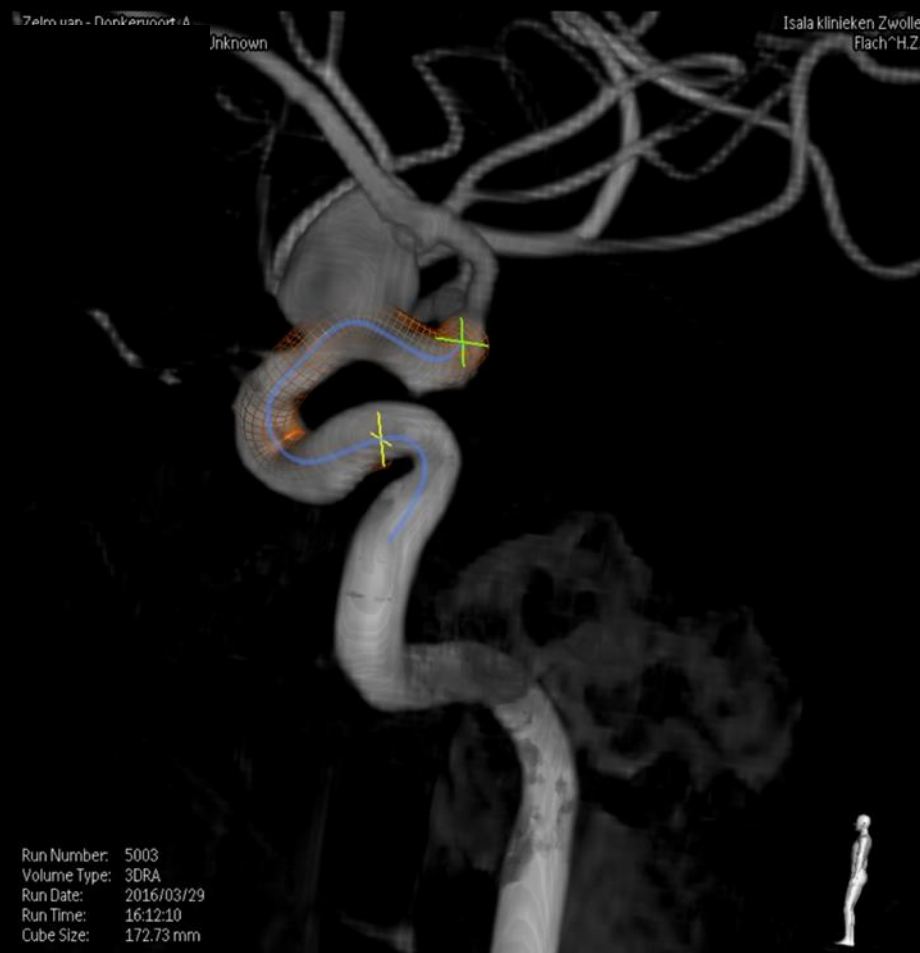


Run Number: 5003
Volume Type: 3DRA
Run Date: 2019/09/25
Run Time: 14:55:29
Cube Size: 126.41 mm





Run Number: 5003
Volume Type: 3DRA
Run Date: 2016/03/29
Run Time: 16:12:10
Cube Size: 172.73 mm



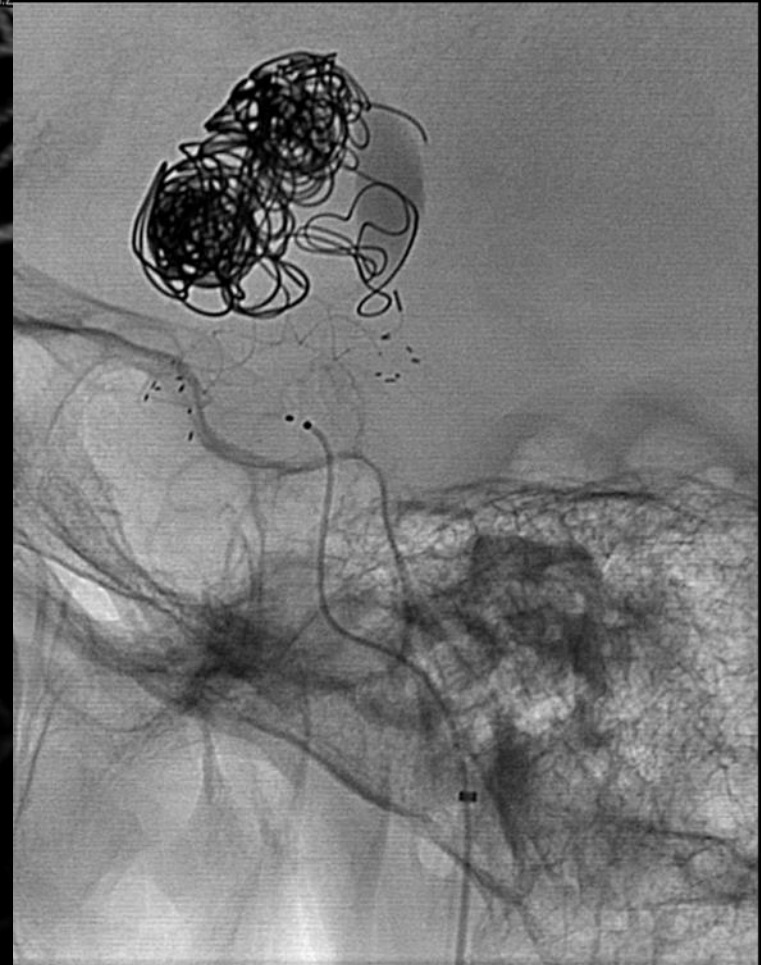
Head Side

Isala klinieken Zwolle
Flach~H.Z

Run Number: 5003
Volume Type: 3DRA
Run Date: 2016/03/29
Run Time: 16:12:10
Cube Size: 172.73 mm

Quick Measurement 1
Quick Measurement 2

3.42 mm
4.87 mm



FoV: mm
C: 509,0, W: 683,0
80 kV

FoV: mm
C: 127,5, W: 255,0

FoV: mm
C: 127,5, W: 255,0

Complicaties

- Technische problemen
 - vaattoegang
- Aneurysma ruptuur (2-5%)
- Thrombo-embolische complicaties (6-17%)
- Vasospasme (5%)
- **Blijvende neurologische uitval (3-7%)**
- **Overlijden (0-3%)**

Nazorg

Eerste 24-48 h:

- Fraxiparine (therapeutisch)
- Bij stent Ascal en Prasugrel
- Bij neurologische complicaties > CTA en handelen naar bevindingen

Na 6 mnd:

- > Controle **MR** angiografie
 - nekrest
 - compactie coils /revascularisatie
 - groei aneurysma

Conclusies

- Incidentele aneurysmata voorste circulatie <7mm niet behandelen
- Morbiditeit en mortaliteit coiling beter dan chirurgie
- Keuze voor behandeling voornamelijk afhankelijk van morfologie van het aneurysma, voorkeur voor coiling vs operatie
- Vakgebied in ontwikkeling
- Multidisciplinaire benadering
- Vragen?