

PHILIPS

Clinical Use Xper Systems

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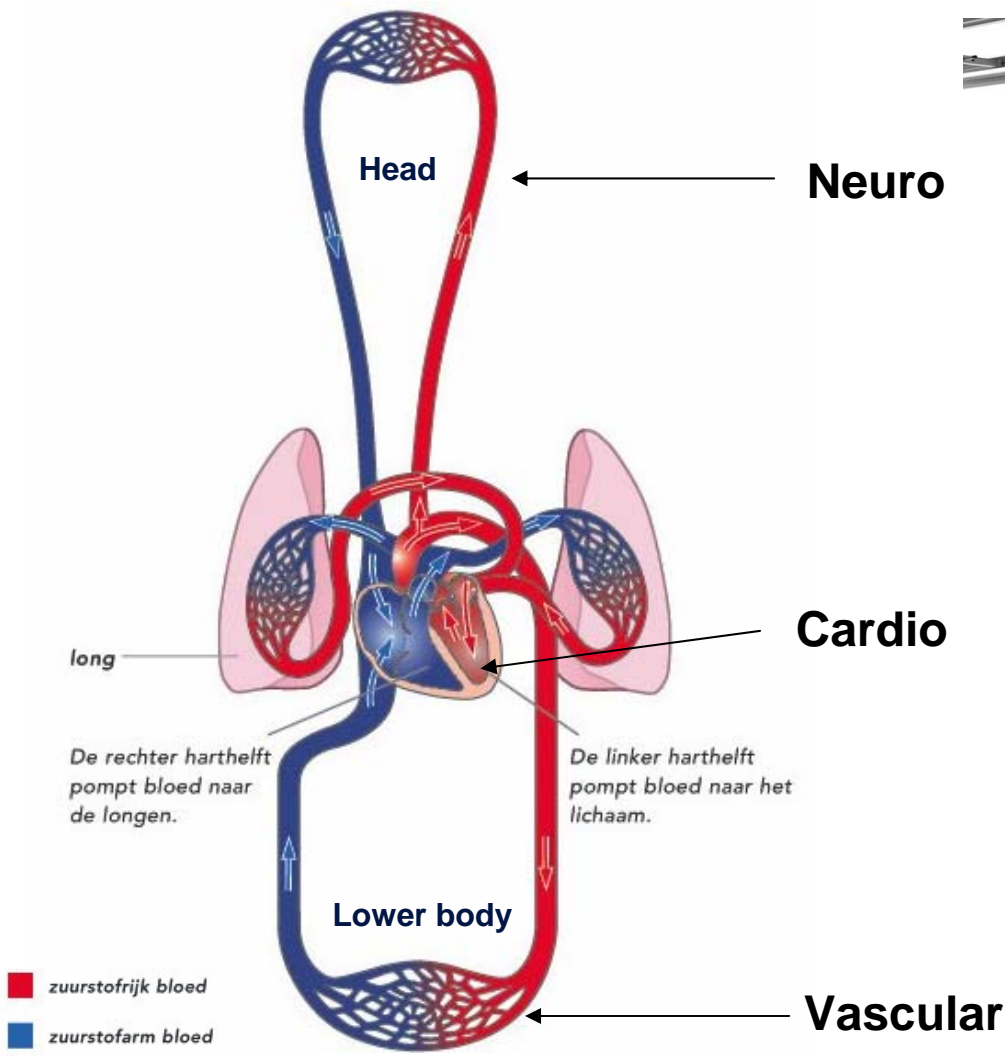
Integration & Test

TestNet 2007

December 11, 2007

- Introduction
- Human Body & Xper System
- Cardio / Vascular “Diseases”
- Treatments
- Goal Xper System
- Questions

Simplified Body / Blood circulation



Most common Cardio / Vascular Diseases

There are many “ Cardio / vascular” diseases, the most common known are: **Stenosis & Aneurysma**

- Symptoms : Chest pain during exercise/excitement (unstable angina)
: Acute Myocardial Infarction (unstable angina): Hart attack

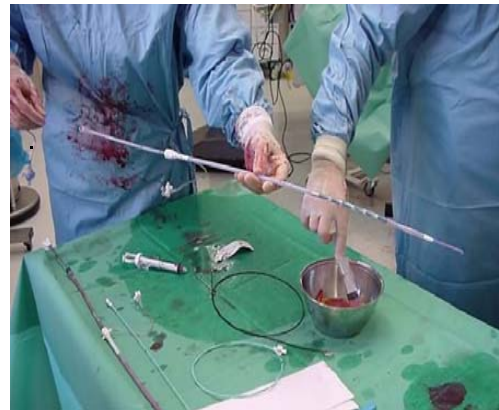
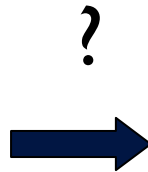
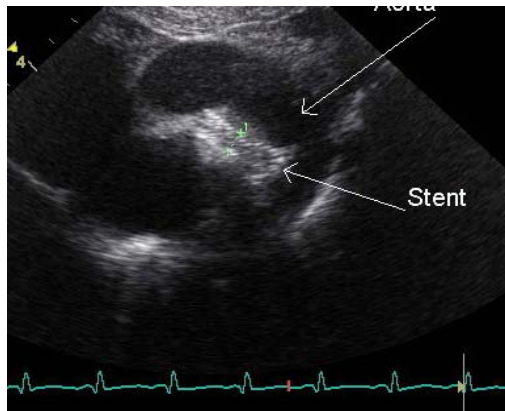
“Stenosis” (Constriction of vessel)

- Symptoms : Head ache, throw up, neck spasm
: unconscious → death

“Aneurysma” (Bulge in vessel)

From “Problem” to “Diagnoses to “Treatment”

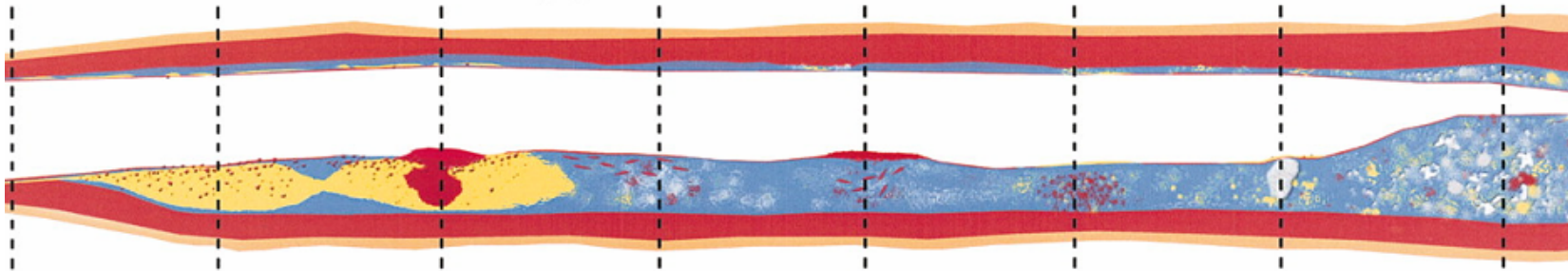
- Patient does not feel well and goes to Hospital.....?
- Diagnose tests will be done on patient, X-ray Diagnose or Intervention ? X-ray needed ?



- Catheter will be inserted in the body and guided to the place of Interest, contrast medium will be injected and this image will Be “recorded” by the X-ray system, diagnose or intervention can take place....

Stenosis (constriction of vessel)

Different Types of Vulnerable Plaque

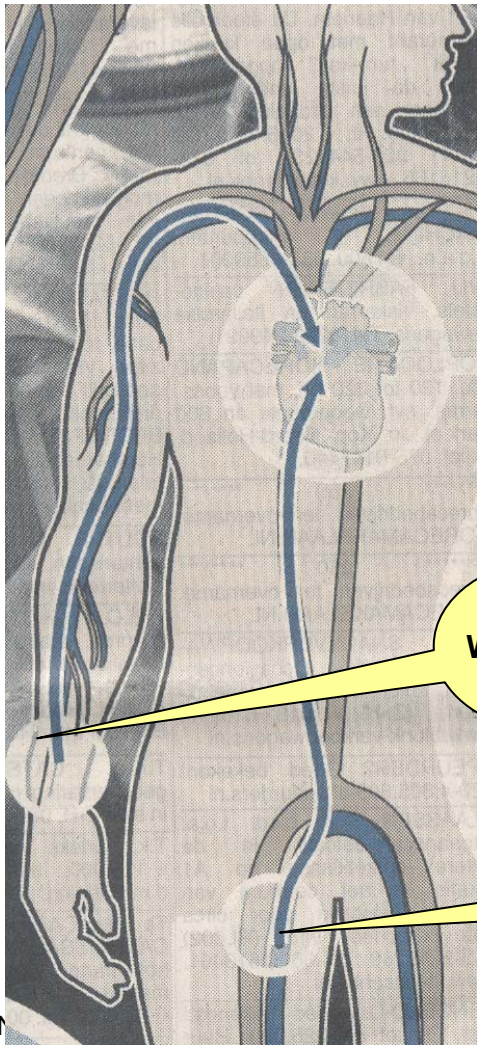


Percutane Transluminale Coronair Angioplastiek (**PTCA**): Stretch vessel

Treat Patient with:

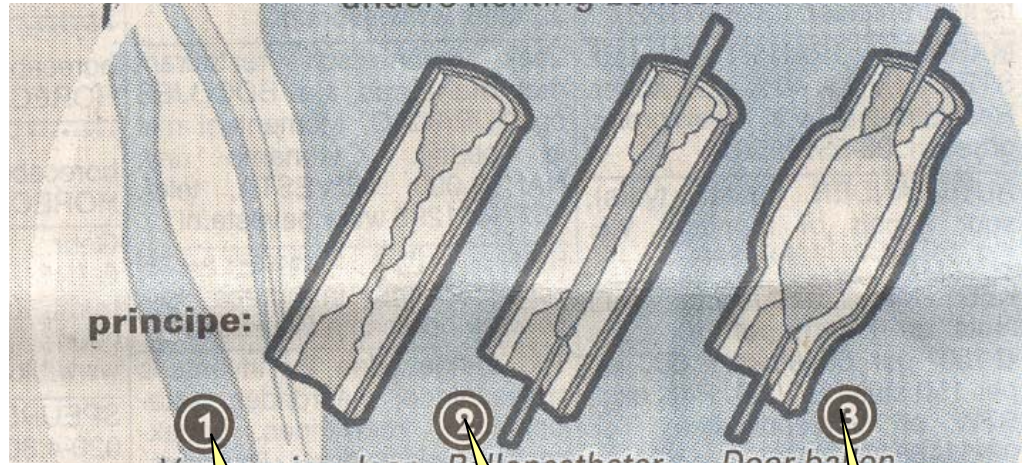
- Inflate balloon in vessel (Dotteren, Dr Charles Dotter)
- Place Stent
- Add drug (Medication)

PTCA with Balloon (Dotteren)



Wrist PTCA

Lies PTCA

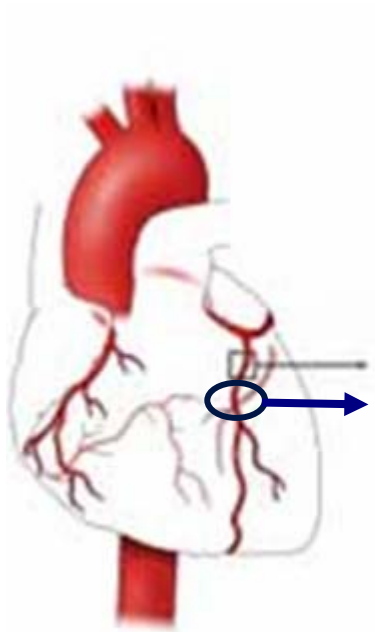
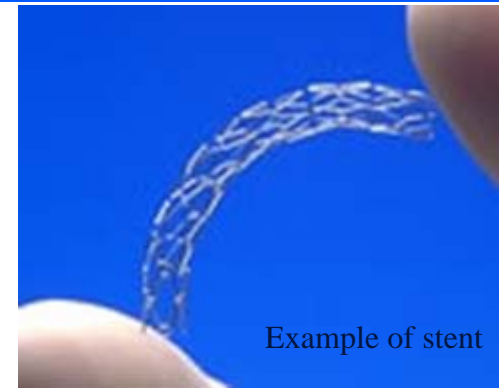


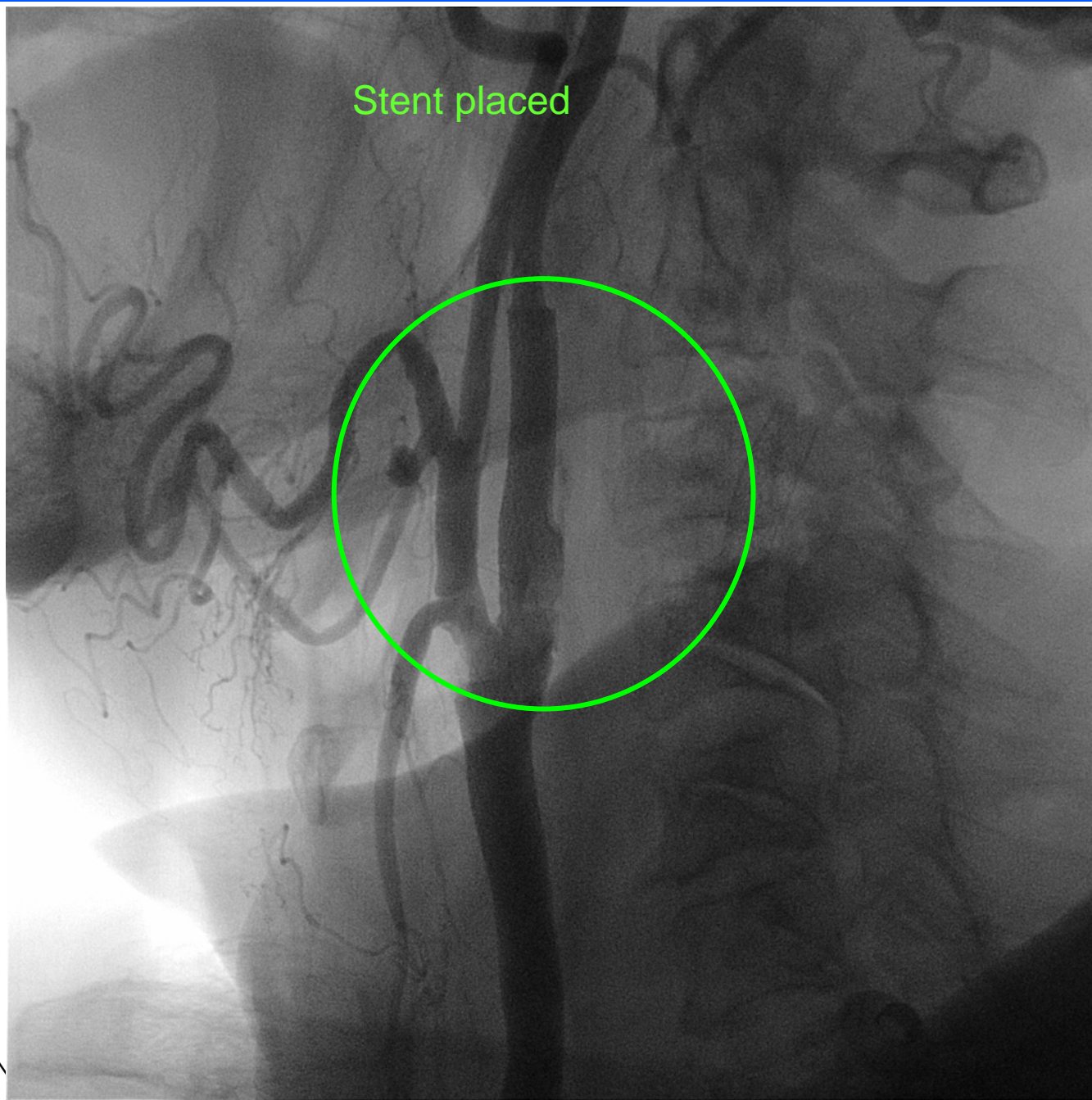
1
Stenosis due to plaque

2
Balloon catheter inserted

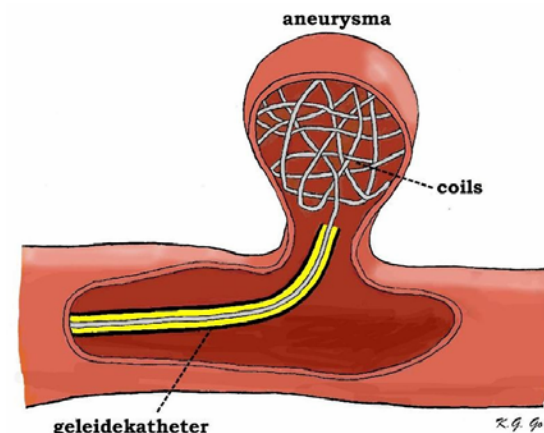
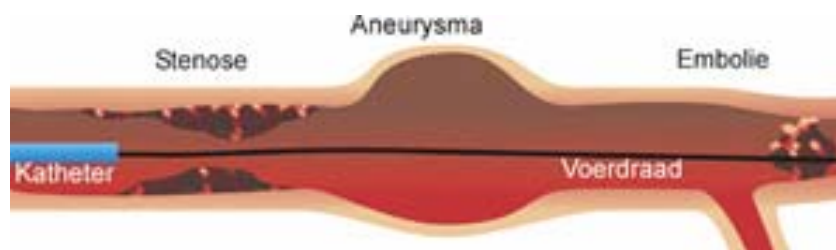
3
Balloon inflated

PTCA with Stent





Aneurysma

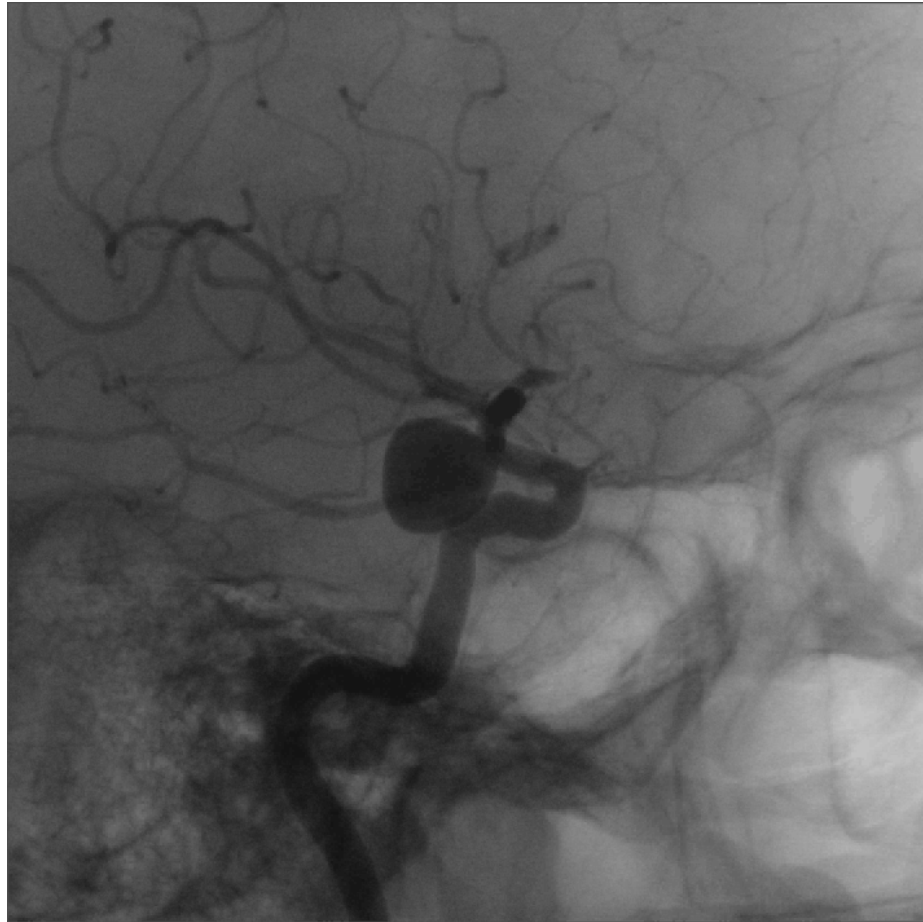


- Aneurysma (Uitstulping van het vat)

Treat Patient with:

- Place Stent
- “Coiling” (fill aneurysma with Wire)
- “Glue-ing” (fill aneurysma with Glue)

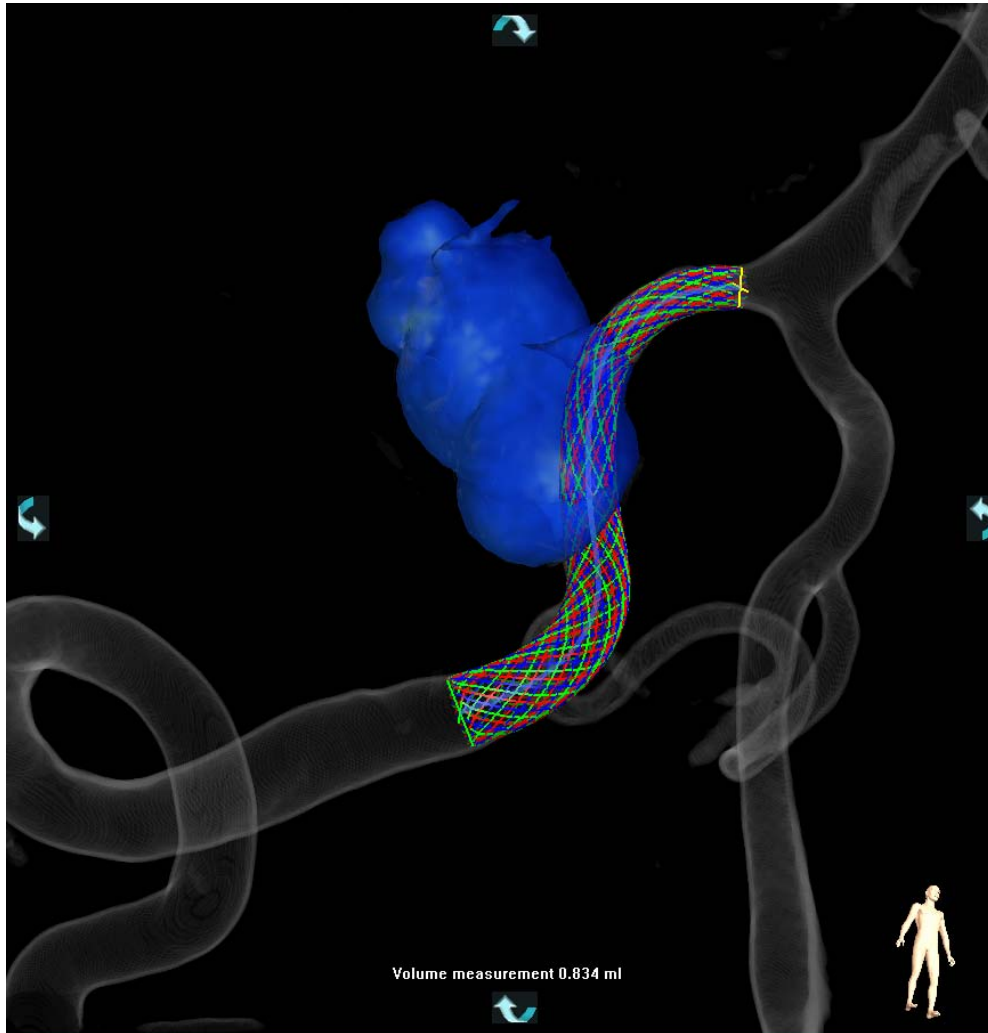
Xper View Aneurysma (Rotational scan)



Coiling Aneurysma (Fluoro trace subtract)



Aneurysma (CT view)



Aneurysma

3DRA scan is made on Xper system, transferred to Interventional Hardware. (3DRA station)

DRA scan + Fluo Overlay
Aneurysma can be treated .



Goal Xper system

- **Help doctor to perform a Diagnose / intervention on a patient.**
- Position Patient. (Geometry + Table)
- Acquire X-rays: Image size, detector rotation, Frame speed, EPX data, QA (measurements)
- Inject contrast medium.
-Intervention by Doctor.....
- Post examination / Archive Patient Data



Questions



