

Strategies for maximizing the safety and the cost-effectiveness during port insertion

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X 10TH
Congresso
GAVeCeLT
Congress

4-5 Dicembre December 4th - 5th

Disclosure

Speaker name:

Ulf Teichgräber, MD, MBA

I have the following potential conflicts of interest to report:

✓ Consulting Fees, Research Grants, Advisory Board Activity

- B Braun Melsungen
- Siemens Healthcare

Content:

- Wireless ultrasound for Port implantation
- Cosmetic aspects of Port implantation
 - Venous access and catheter position
 - Skin suture or tissue adhesive?
- Patient satisfaction

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Artis Zeego® Q meets Freestyle® Ultrasound



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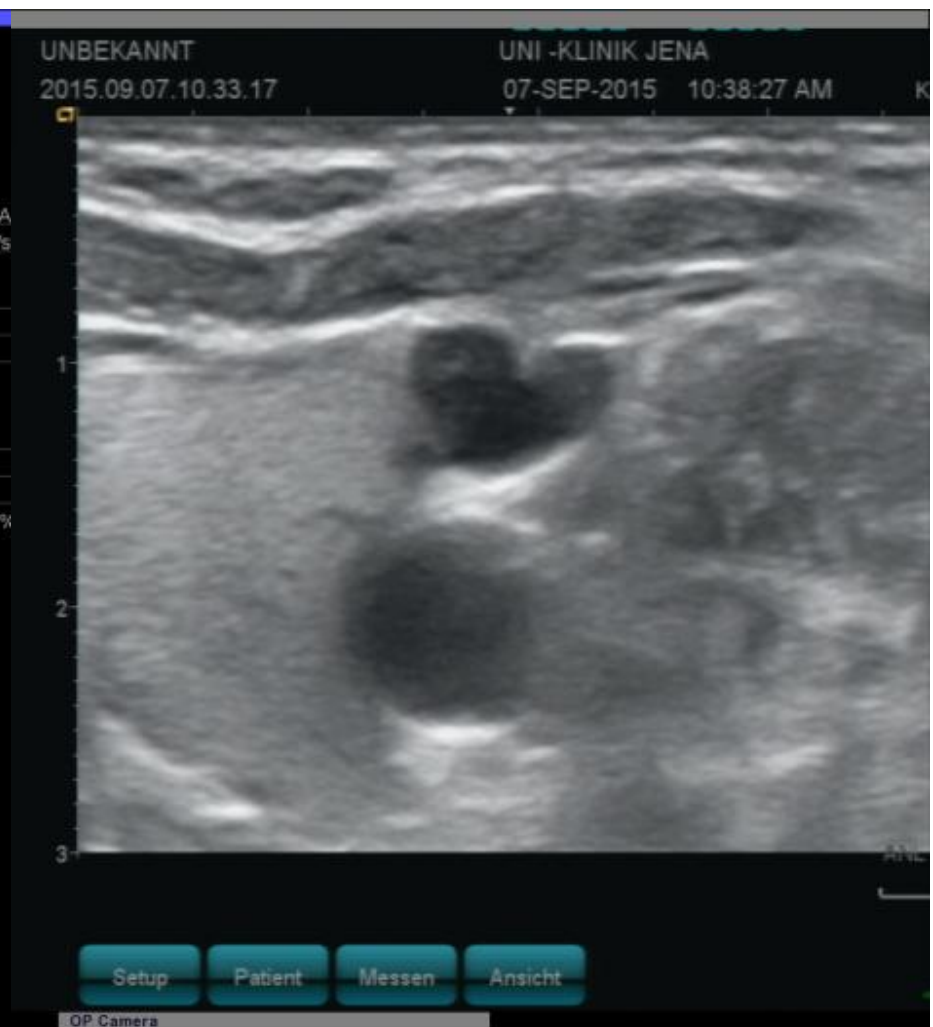
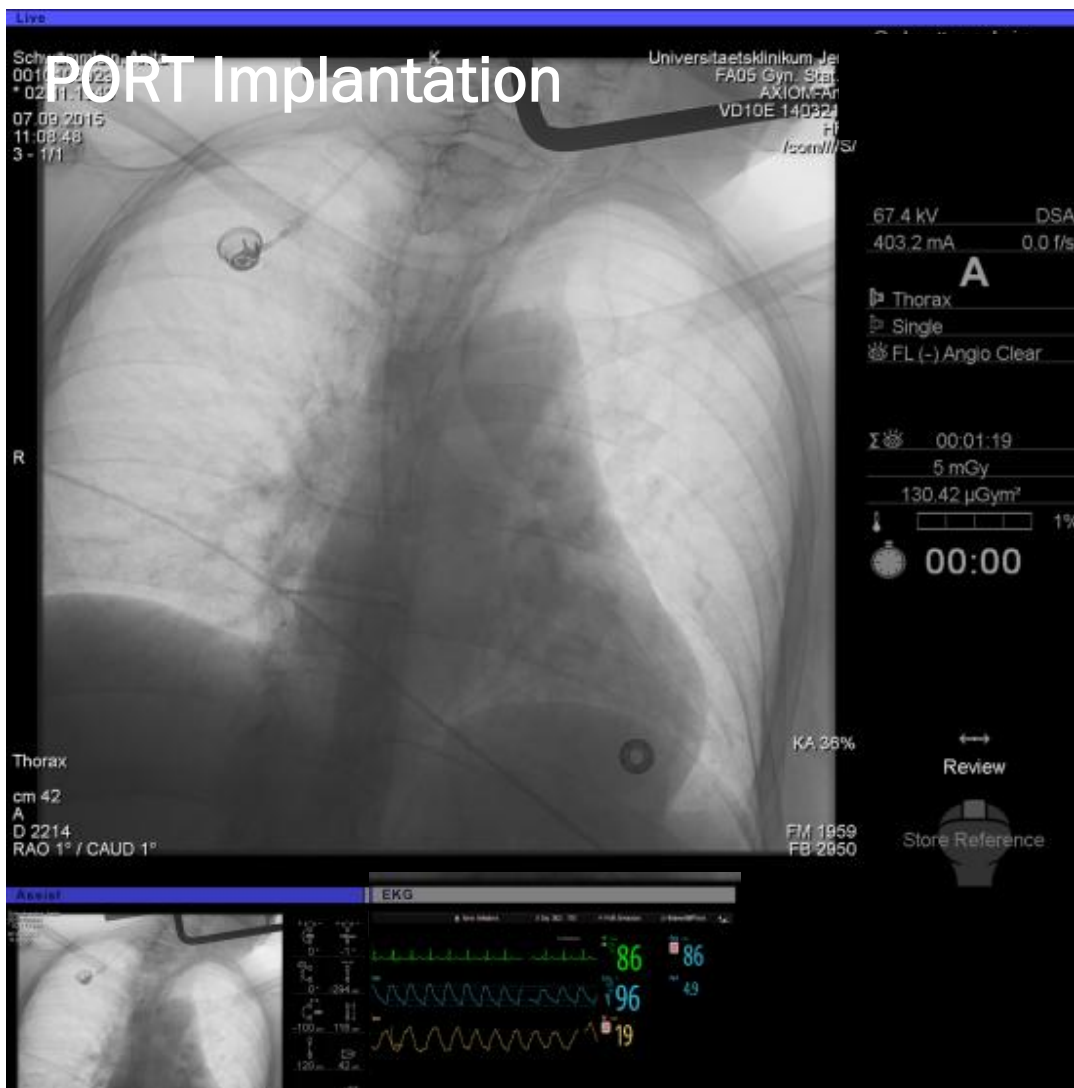
Preparation



Preparation



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Ready to go!



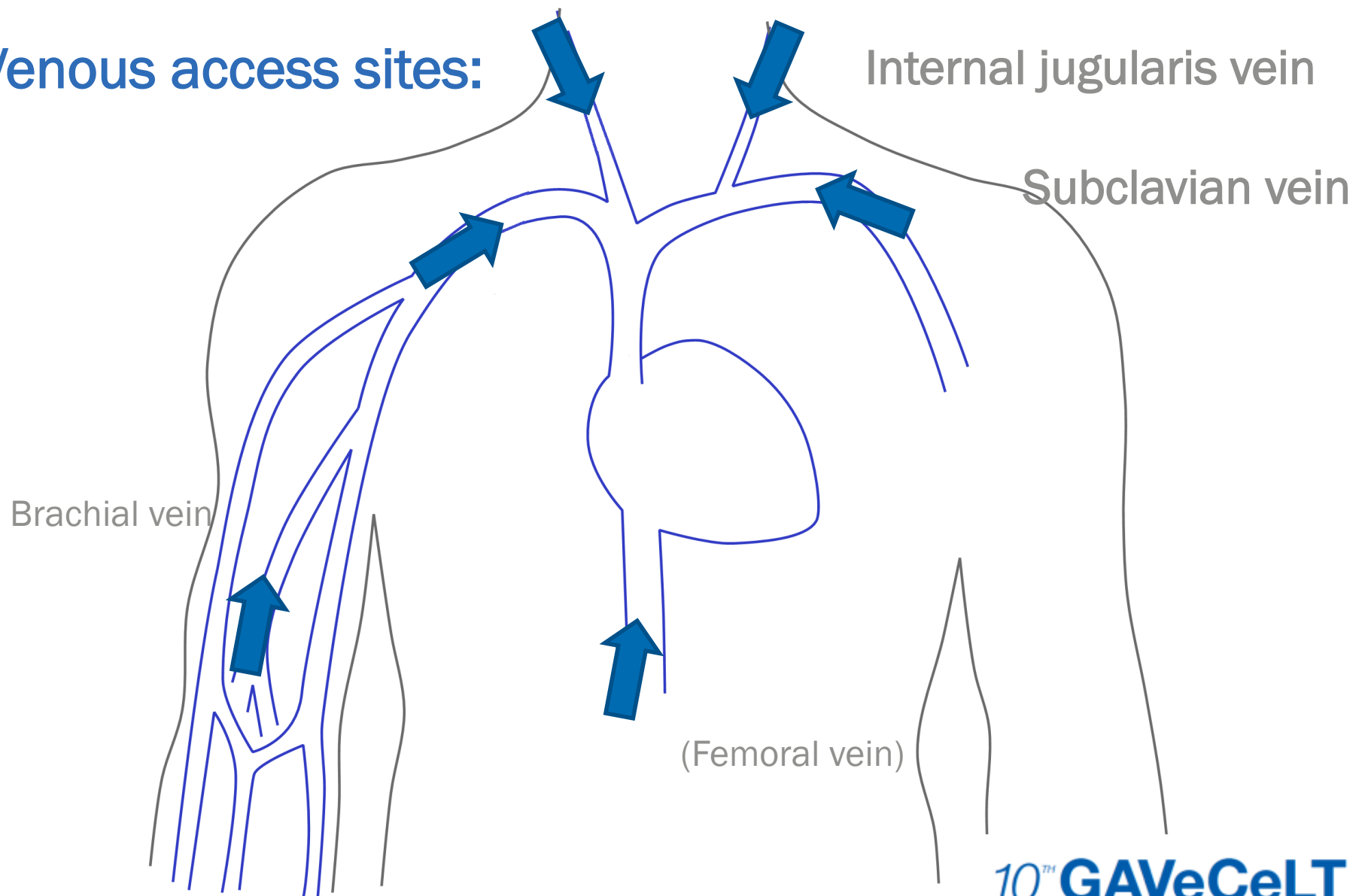
Preparation time Freestyle: 28 ± 13 sec. ($\approx 1/2$ min)

Prepartation time conventional US: 371 ± 48 sec. (≈ 6 min)

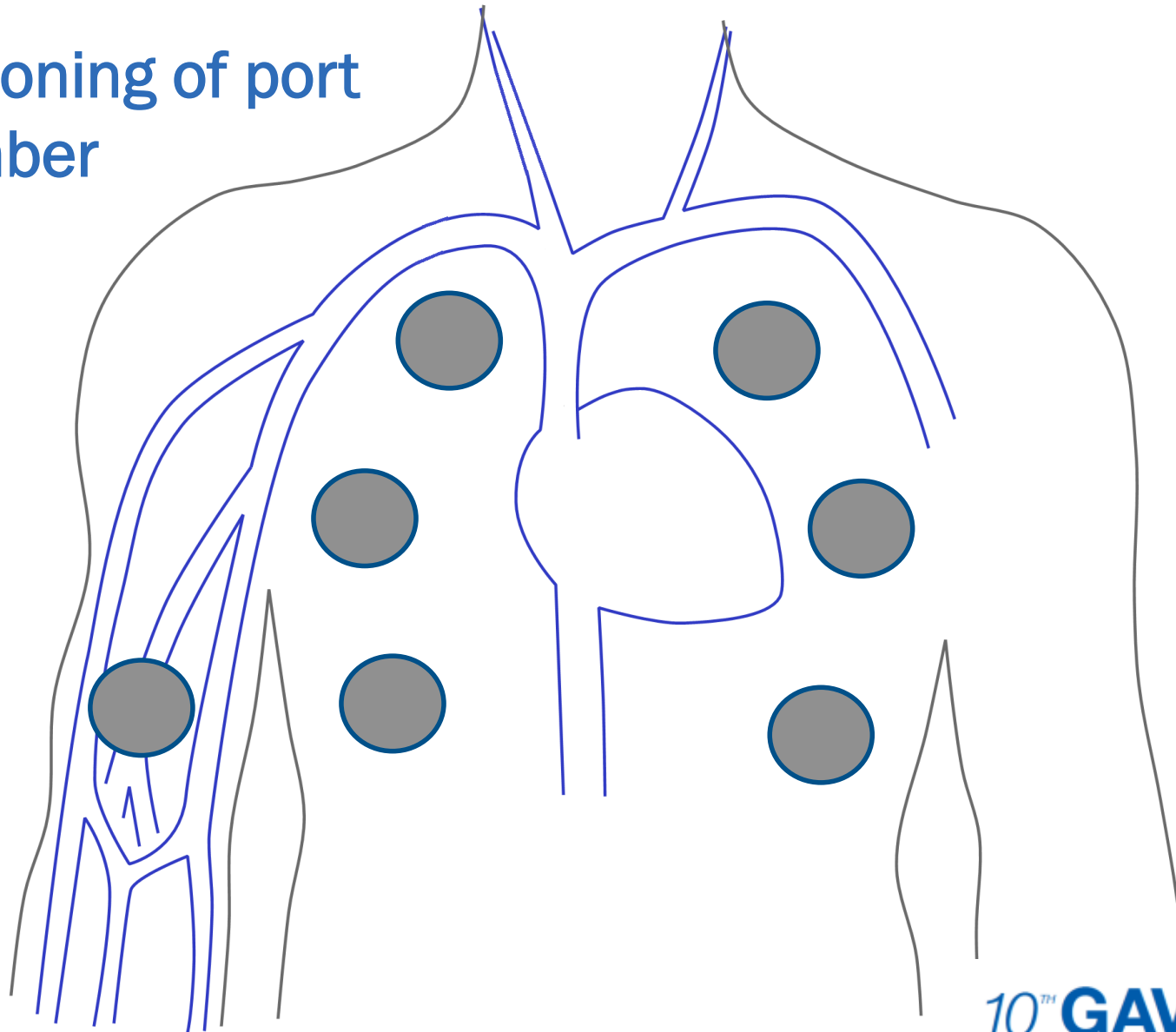
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➤ **Venous access sites:**



➤ Positioning of port chamber

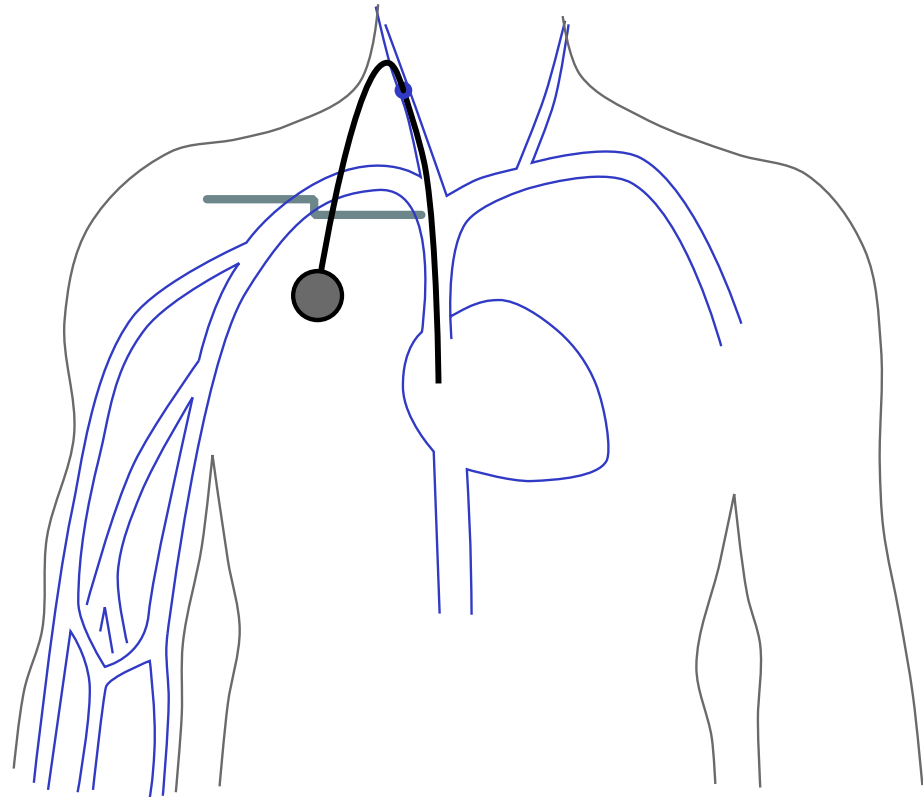


Criteria to choose the implantation site :

- Previous surgery or intervention at implantation site
- Medical history
- Previous radiation therapy
- Thrombosis
- Local infections
- Patient preference
- Operator preference

Advantages of venous access over internal jugularis vein:

- Easily to detect under ultrasound guidance
- Low rate of thrombosis
- No „pinch-off“
- Pneumothorax unlikely



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➤ Skin suture or tissue adhesive?

Skin suture



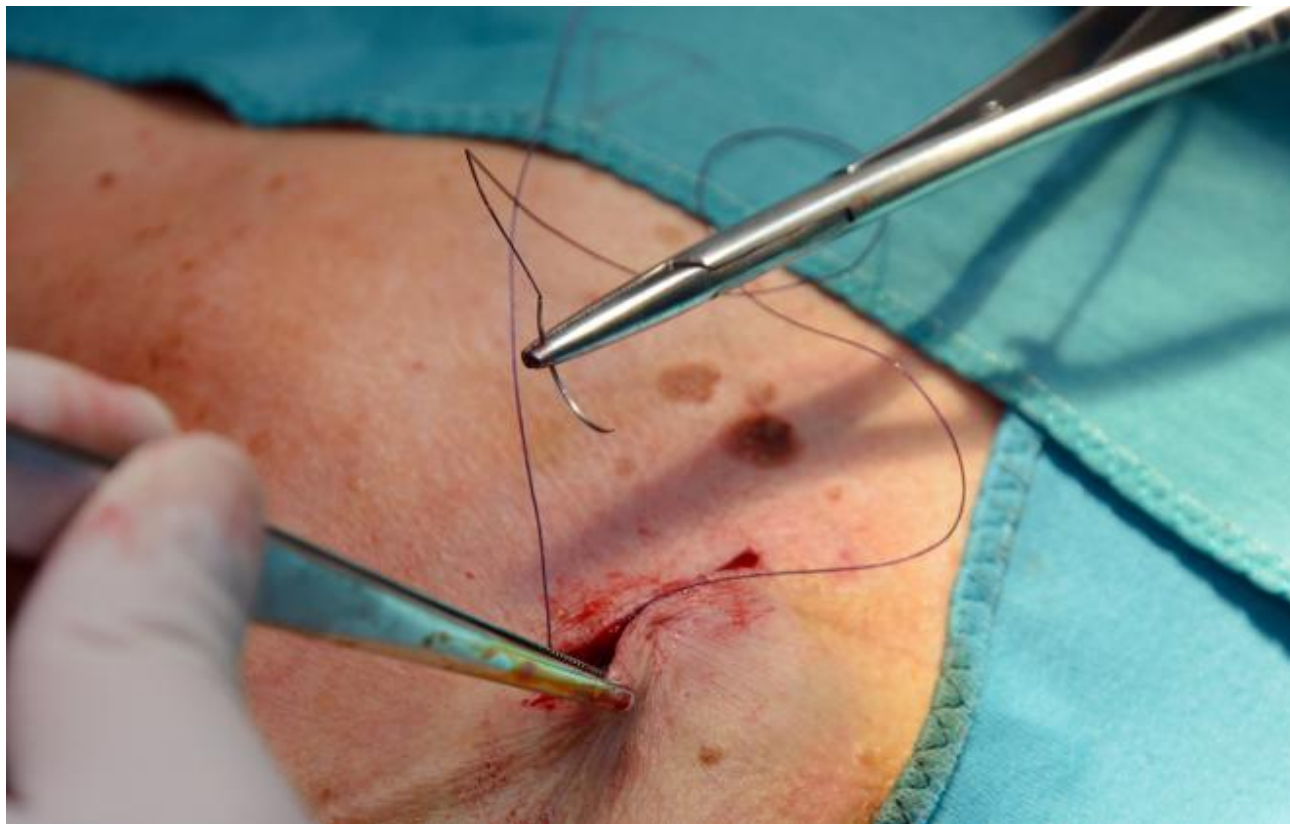
Advantages :

- Not visible
- No thread tension
(dissolves within 9 to 20 days)
- Post-operative wound care

Disadvantages :

- No germ barrier
- Possible foreign body sensation
- Post-operative bandage necessary
and waterproof plaster in first week
- Suture technique must be learned

- Technique and procedure of a port catheter implantation in Jena, Germany
 - Absorbable subcutaneous suture of port chamber



➤ Skin suture or tissue adhesive?

Tissue adhesive

(Cyanoacrylate glue)



Histoacryl Flexible (B.Braun)

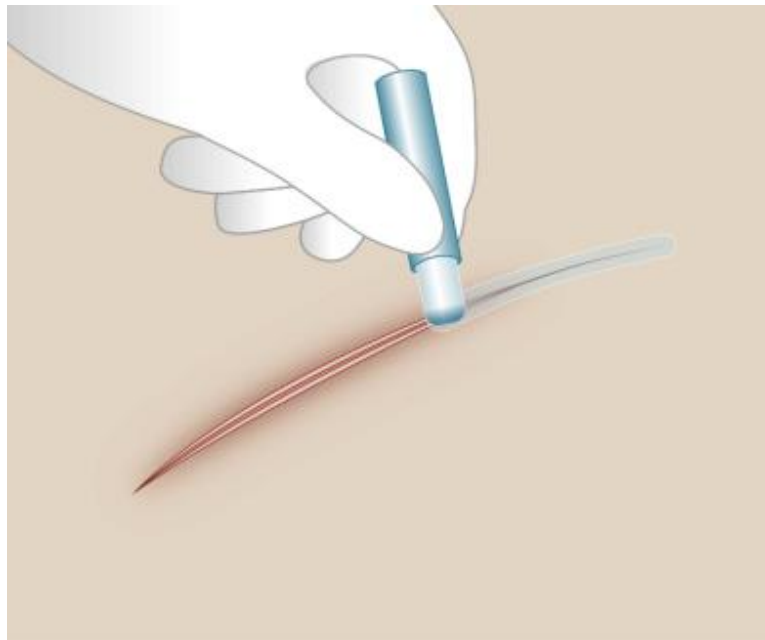
Advantages:

- Wound closes immediately (after <1min)
- Mechanical germ barrier
- Waterproof (short showers allowed)
- No bandage
- Easy to use
- No thread tension
- Peel-off after 7 – 10 days

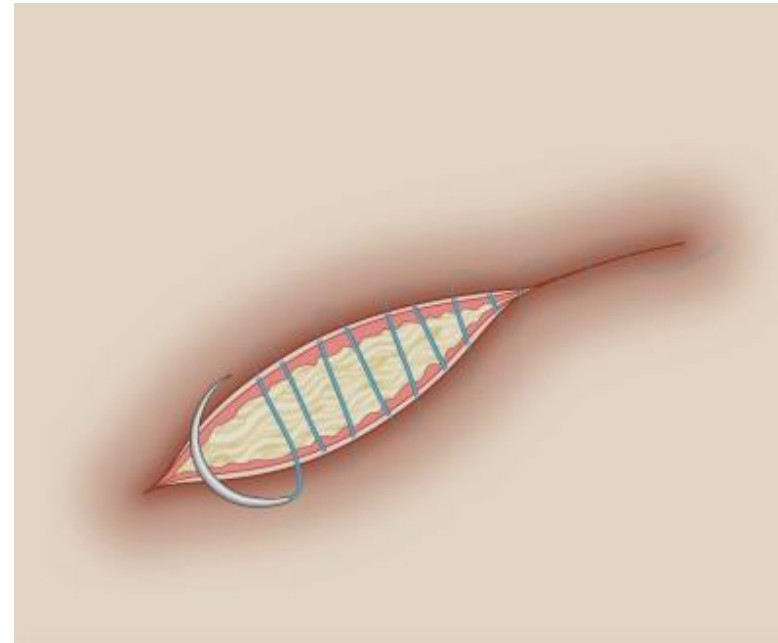
Disadvantages:

- Possible tattooing
- Short heat development
- Post-operative wound care by non-informed personnel
- Patient compliance

- Technique and procedure of a port catheter implantation in Jena, Germany
 - Skin closure of port chamber and puncture site



glue



subcutaneous suture

➤ Skin suture or tissue adhesive?

Port- Wound- Closure Study

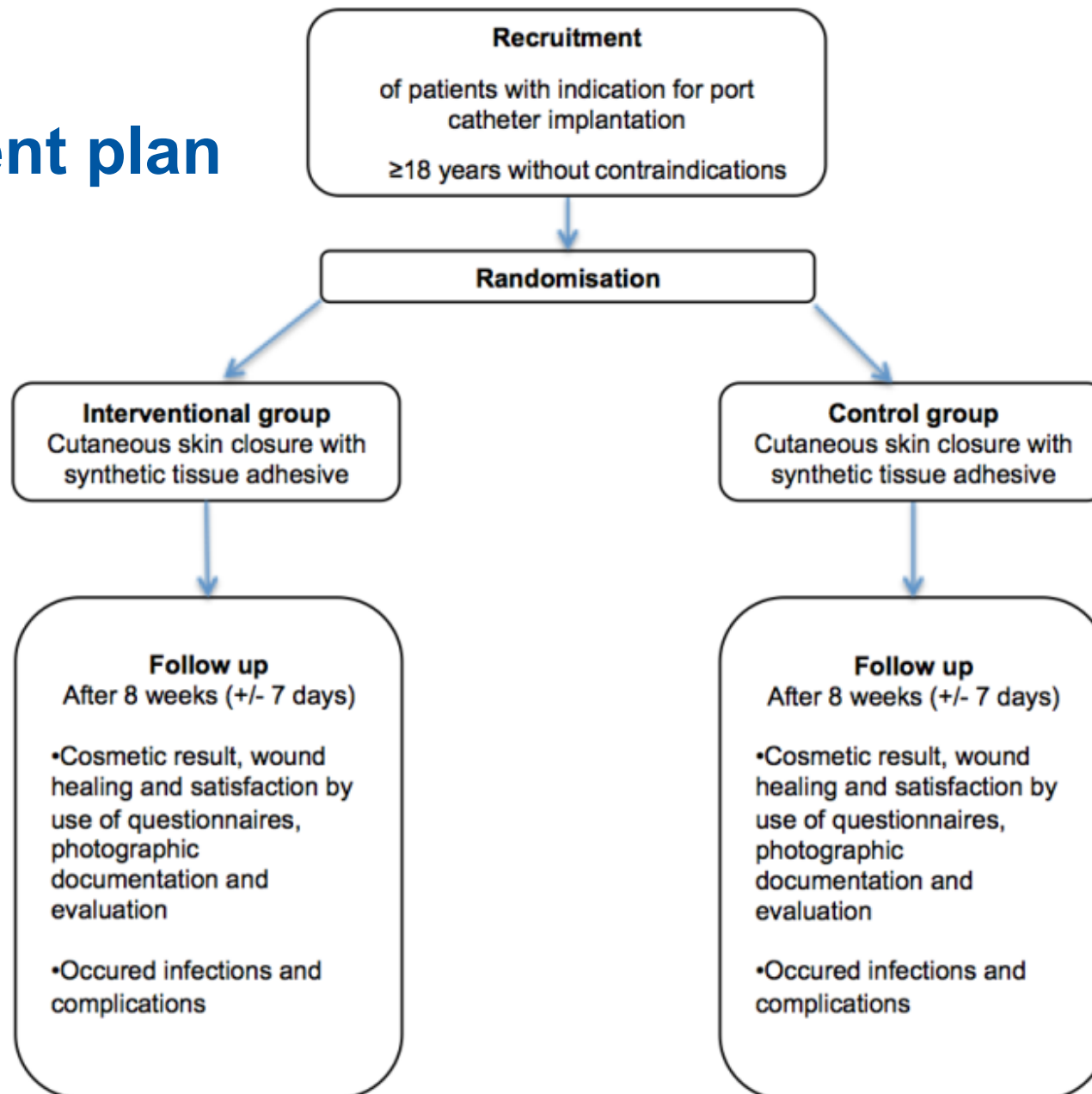
- Randomized, controlled
- Ratio of wound infection
- Economy of time for wound closure after implantation
- Cosmetic result (evaluated by patient and, blinded, by surgeons)



VS.



Treatment plan

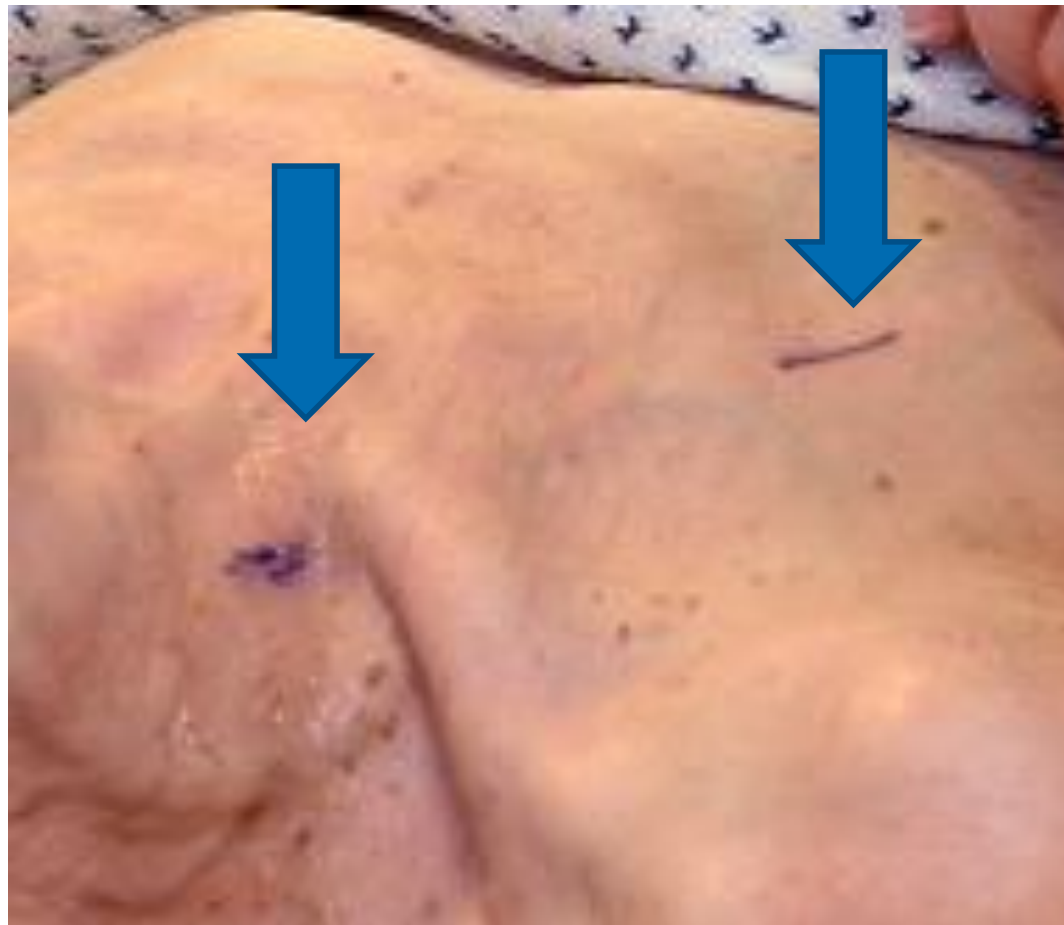


➤ Skin suture or tissue adhesive?

Port- Wound- Closure Study

- 156 patients (Recruitment FINISHED 09/2017)
- 8 weeks post-operative for wound control
- Questionnaires (POSAS-Score for patient and observer)
- Photographic documentation of wound
- Evaluation of the cosmetic results by independent and blinded investigators

Cosmetic results with tissue adhesive
immediatly after port implantation:



- Skin suture or tissue adhesive?

Cosmetic results 6 weeks post implantation:



suture



adhesive



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Satisfaction and quality of life: a survey-based assessment in patients with a totally implantable venous port system

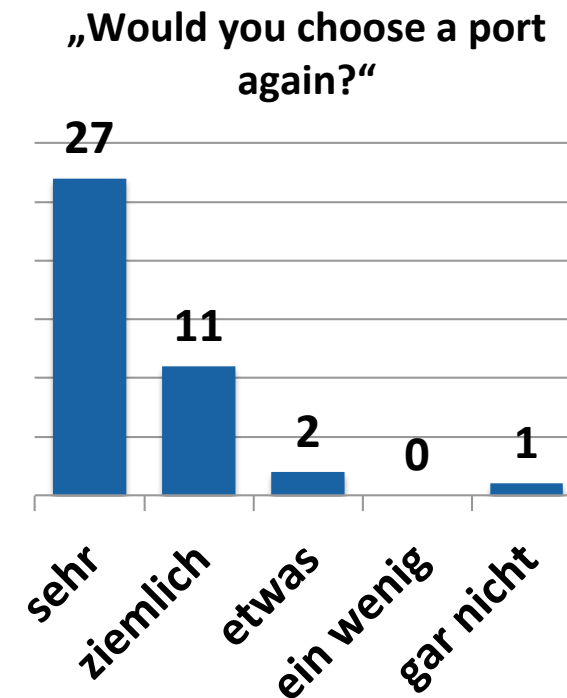
S.N. NAGEL, STUDENT, *Department of Radiology, Charité University Medicine, Berlin*, U.K.M. TEICHGRÄBER, MD, MBA, *Department of Radiology, Charité University Medicine, Berlin*, S. KAUSCHE, STUDENT, *Department of Radiology, Charité University Medicine, Berlin*, & A. LEHMANN, PHD, *Department of Psychiatry, Charité University Medicine, Berlin, Germany*

NAGEL S.N., TEICHGRÄBER U.K.M., KAUSCHE S. & LEHMANN A. (2012) *European Journal of Cancer Care* 21, 197–204

Satisfaction and quality of life: a survey-based assessment in patients with a totally implantable venous port system

Patient Satisfaction after Port Implantation

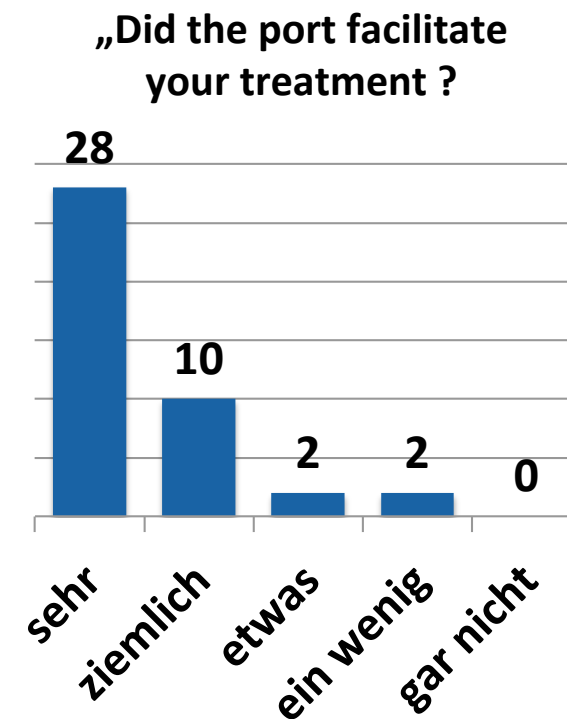
- Most of the patients in a similar situation would opt for a port



Nagel, S. N., Teichgräber U. et al. (2012). "Satisfaction and quality of life: a survey-based assessment in patients with a totally implantable venous port system." Eur J Cancer Care (Engl) **21**(2): 197-204.

Patient Satisfaction after Port Implantation

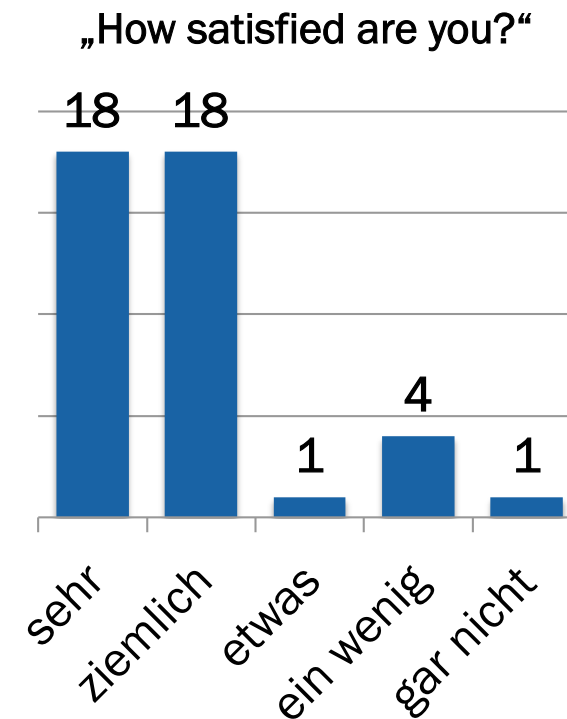
- Facilitate the treatment



Nagel, S. N., Teichgräber U. et al. (2012). "Satisfaction and quality of life: a survey-based assessment in patients with a totally implantable venous port system." Eur J Cancer Care (Engl) **21**(2): 197-204.

Patient Satisfaction after Port Implantation

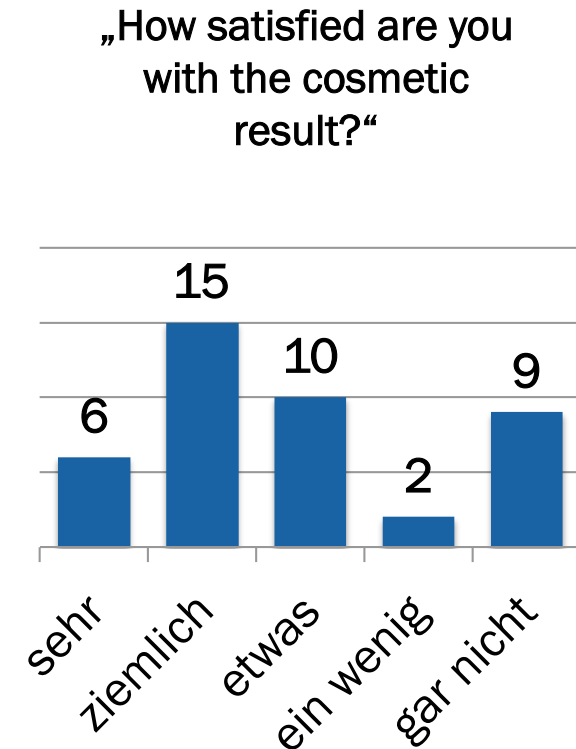
- 36 out of 42 patients considered themselves „very“ or „quite“ satisfied



Nagel, S. N., Teichgräber U. et al. (2012). "Satisfaction and quality of life: a survey-based assessment in patients with a totally implantable venous port system." Eur J Cancer Care (Engl) **21**(2): 197-204.

Patient satisfaction after port implantation

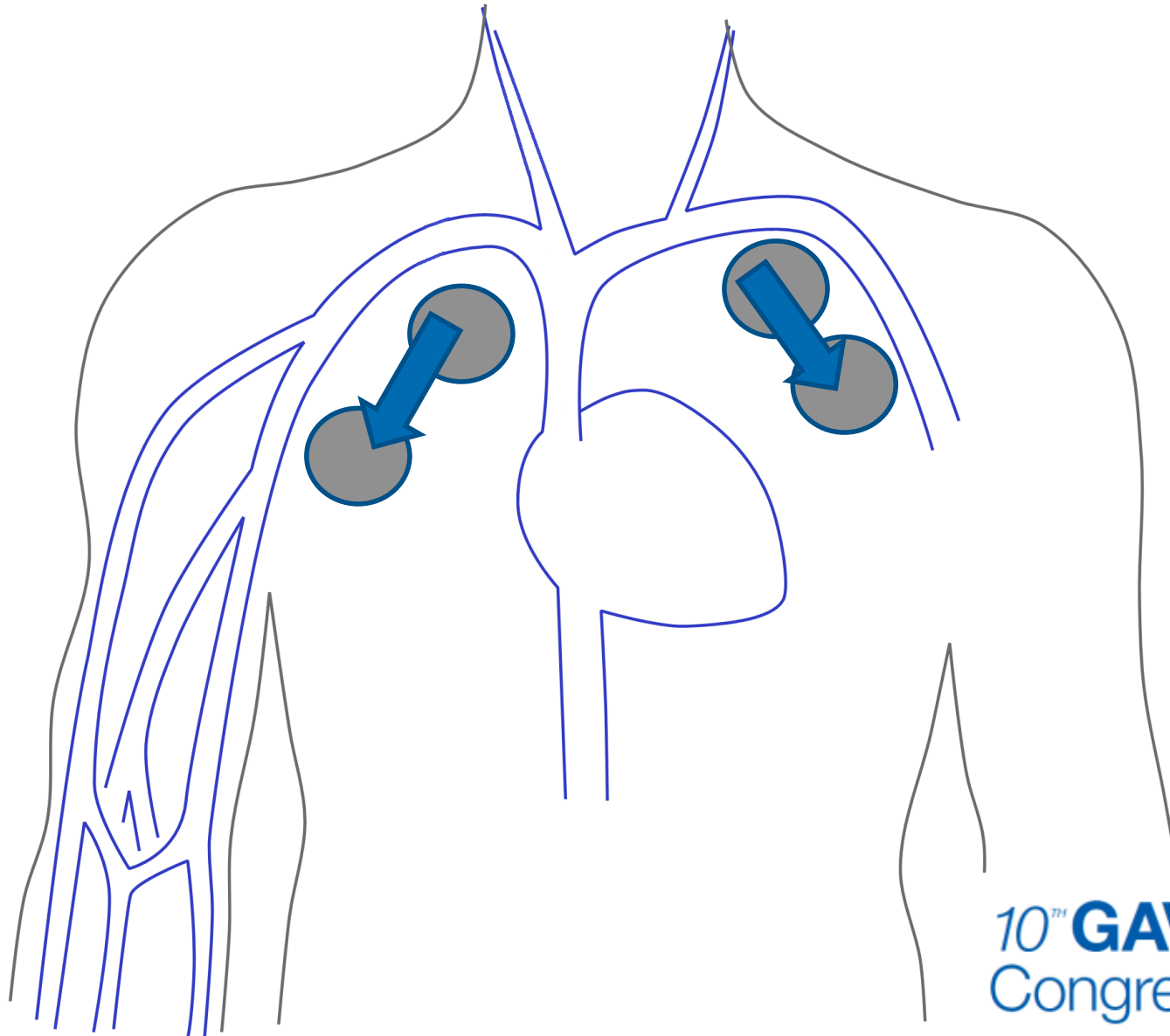
- only 21 out of 42 patients are „very“ or „quite“ happy with the cosmetic result:
→ Satisfaction of cosmetic result showed statistically a relation between overall satisfaction and life quality



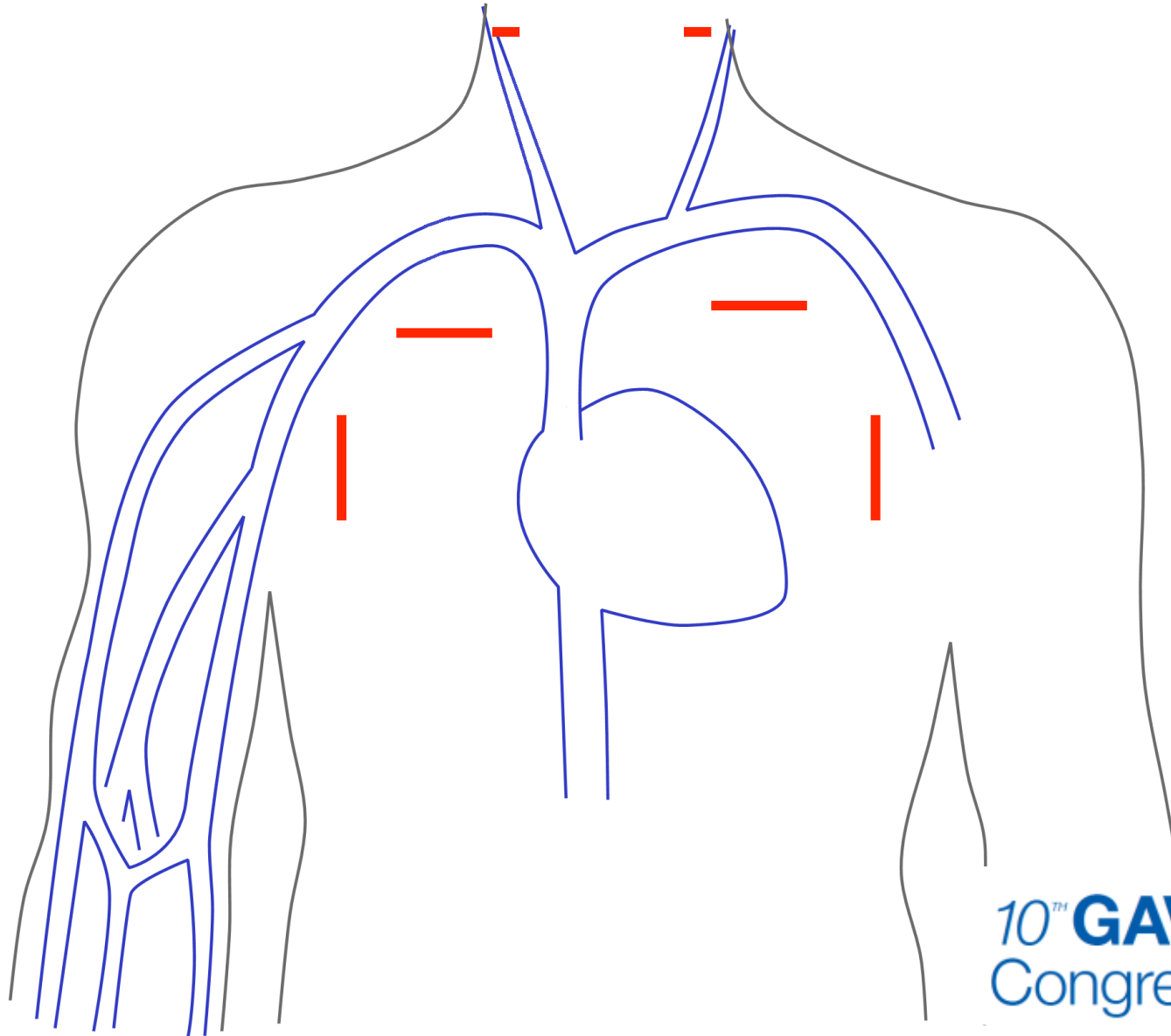
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What else can we do?

Choice of port chamber:



Length and position of scar :



Position of port chamber matters:

Not only relevant for a very décolleté dress!

VICTORIA BECKHAM NYFW



“The Woman I Wanted to Be”

Choice of catheter size and types:



http://www.idir.uniklinikum-jena.de/idir_media/image/Portimplantation/verschiedene_portsysteme-font-48-width-720-height-185.jpeg

Celsite® Discreet

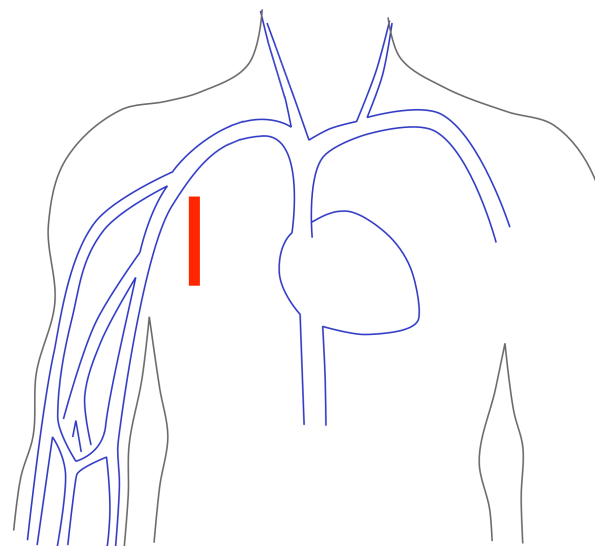


Site pocket port

Braun Celsite® Discreet Port



Is the patient cachectic?



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➤ Skin suture or tissue adhesive?



Post-operative Wound Care:

- Cyanoacrylate glue provides full sealing of the wound
- Patient is allowed to do regular body care (e.g. take a shower)
- The glue is highly flexible and is accredited for surgical wound sealing up to 25 cm length.

Outcome results will be presented @

Ongoing Clinical Trial

ClinicalTrials.gov

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Trial record **5 of 8** for: teichgräber

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Comparison of Skin Adhesive to Subcuticular Suture Wound Closure

This study is currently recruiting participants. (see [Contacts and Locations](#))

Verified September 2016 by Jena University Hospital

Sponsor:

Jena University Hospital

Collaborator:

Aesculap AG

Information provided by (Responsible Party):

Ulf Teichgräber, Jena University Hospital

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[No Study Results Posted](#)

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Summary

- Correlation between cosmetic result, patient satisfaction, and quality of life
- Cosmetic result depends on many factors:
 - Right choice of port system
 - Choice of implantation method
 - Position of port chamber
 - Length of scar
 - Wound closure
 - Skin adhesive (cyanoacrylate glue): Histoacryl Flexible® provides an improved wound closure

