Sealing veins with the Venaseal™ Closure System

3-year-study: Results for 886 treated veins - Dr. U.Th.Zierau
Disclosure

• Speaker name: Ulf Zierau

• I have the following potential conflicts of interest to report:
  □ Consulting
  □ Employment in industry
  □ Stockholder of a healthcare company
  □ Owner of a healthcare company
  □ Other(s)

• I do not have any potential conflict of interest
VenaSeal™ - Closure System – our experience

Treatment with Cyanoacrylate

Since 1949 the chemical compound is known, first being used in operative medicine in the early 60s.

- Tissue adhesive or replacement of wound sutures
- Nearly all operative disciplines were using cyanoacrylate i.e. dermatology, ophthalmology, orthopedics, surgery orthodontics, interventional radiologists.
- The risk of allergic reaction is not real – we didn`t find any report or scientific study in medline.

FDA – approval states: VenaSeal™ is bio-compatible, bio-resorptive, not carcinogenic and not allergenic!
Since August 3 2015 we treated 886 truncal veins.

- Great saphenous vein in 619 cases, small saphenous vein in 267 cases
  - 128 patients had a single truncal vein treatment
  - 317 patients received treatment for two truncal veins
  - 36 cases we treated three truncal veins,
  - 4 patients had four truncal veins treated in a single session.

- No general anesthesia in any case. Most procedures were carried out under sedation (dormicum), 19 patients remained without any sedation, one patient performed pain acupuncture on herself on point G4

- In 95% of all cases the patients left without compression stockings

- We recommend it for ectatic veins (over 1.2 cm in diameter) and aneurysms
VenaSeal™ - Closure System – our experience
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Duplex control follow up over approximately 36 months

- Post procedure all 886 veins were re-examined – 884 veins were sealed immediately = **99.8% closure rate**

- After 14 - 30 days we found nine partially and 3 completely recanalized veins = **98.7% closure rate**

- Three to four months post procedure we observed 12 partial and 4 complete recanalizations = **98.2% closure rate**

- After six to eight months we observed an additional 13 partial and 5 complete recanalizations = **97.7% closure rate**

- Further recanalizations were not observed until month 37 in this retrospective study.

**Closure rate at 36 months: 97.7%**
VenaSeal™ Closure System – our experience

- For the treatment of one truncal vein we use on average between $1.2 - 1.8$ ml of glue.

- Side effects in 10 - 15% of all cases:
  - Unspecific inflammatory reaction of tissue in 13.9% (no phlebitis!)
  - Ecchymosis in 10%, especially in extra-anatomic subcutaneous truncal veins
  - Lymph fistula at the puncture site in only one case

**We did not find:**

Hypesthesia, paresthesia, permanent skin reaction, no phlebitis or thrombosis.
Quality standards for endovenous therapy have been developed. 

Colleagues have secure quality criteria for trans-catheter treatment methods. VenaSeal™ closure is the newest development.

In contrast to most other methods VenaSeal™ is performed without using thermal or mechanical energy.

The side effects of laser or radiofrequency are not an issue, pain score compared to radiofrequency is significantly lower (1.6 / 3.4)

We neither need general anesthesia or tumescence, nor do we need compression stockings.

We can treat two or more truncal veins in one single session.

The closure rate of VenaSeal™ compared to endothermal is the same or better!
After 13 years of working with endovenous techniques we say:

Think endovenously!

Our experience with endovenous therapy and especially with VenaSeal™ Closure System made it our basic therapy of truncal varicous veins.
Thank You for Your attention.
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