GE HealthCare

Versatility, portability and image quality:

# The role of Versana Active in vascular care

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## Clinical case of bilateral iliofemoral stents

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The following case was obtained by Zayed Meadows, B.S., RVT using a Versana Active.™

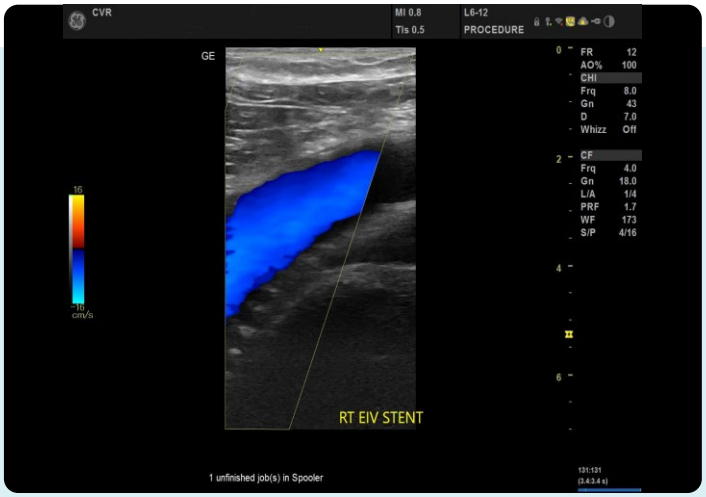
Zayed Meadows, B.S., RVT is a paid consultant for GE HealthCare and was compensated for participation in this case study. The statements by Zayed Meadows, B.S., RVT described here are based on her own opinions and on results that were achieved in her unique setting. Since there is no "typical" hospital and many variables exist, i.e. hospital size, case mix, etc., there can be no guarantee that other customers will achieve the same results.

# Bilateral iliofemoral stents

## Physical presentation

- Pain and swelling of the both (left > right) legs and ankles.
- No history of thrombosis or clotting disorders.
- Patient had bilateral iliofemoral stent placement from the common iliac vein confluence through the femoral vein confluence.
- Body Mass Index: 31Kg/m$^2$.

Indication to consider vascular ultrasound: Due to persistent history of symptoms, a vascular ultrasound of the Inferior Vena Cava (IVC), iliac and lower extremity veins was indicated.

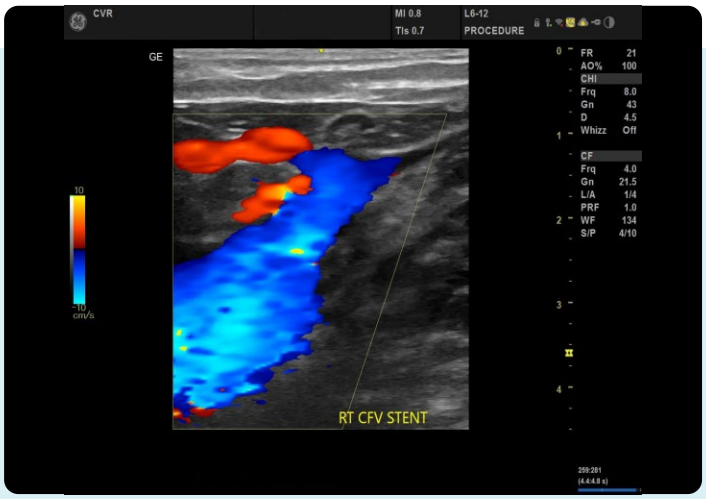


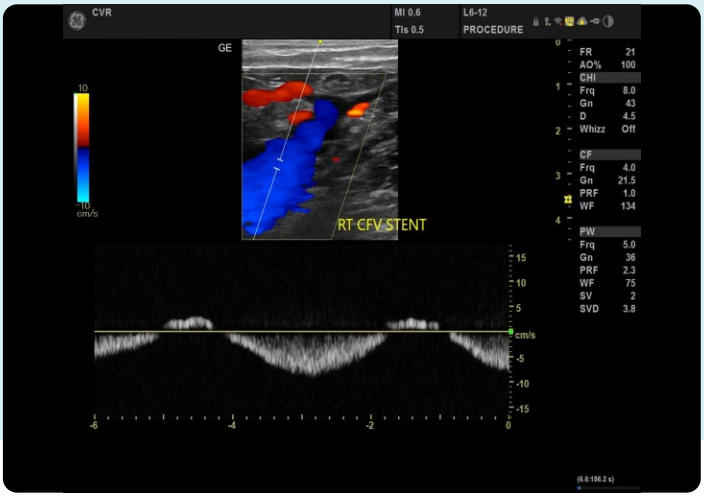
### Right external iliac vein stent evaluation

Longitudinal view of the right external iliac vein stent with and without color and spectral Doppler demonstrate patent stent and common femoral vein (CFV).

# Bilateral iliofemoral stents *cont.*

## Clinical presentation

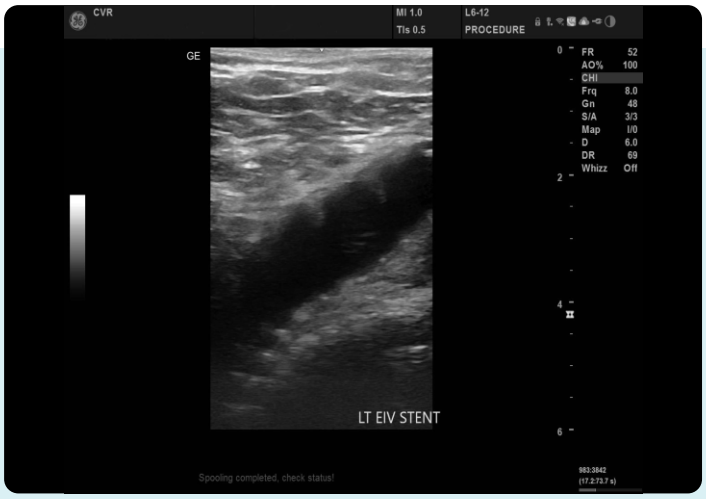



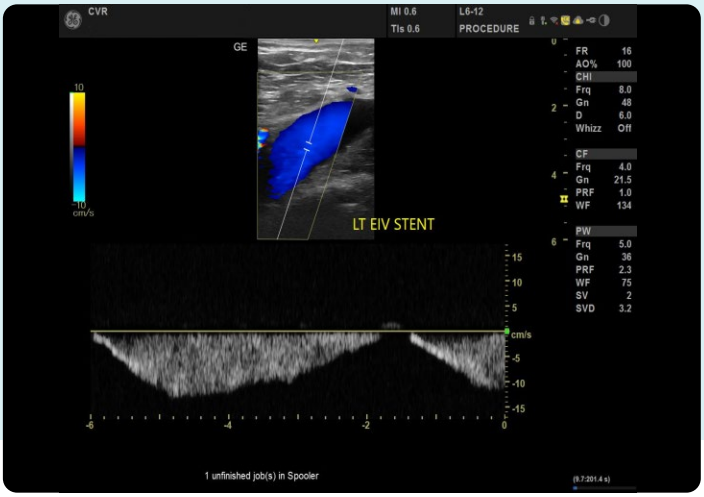

### Right common femoral vein stent evaluation

Transverse views of the right common femoral vein stent with color and spectral Doppler demonstrate a patent common femoral vein.

# Bilateral iliofemoral stents *cont.*

## Clinical presentation *cont.*

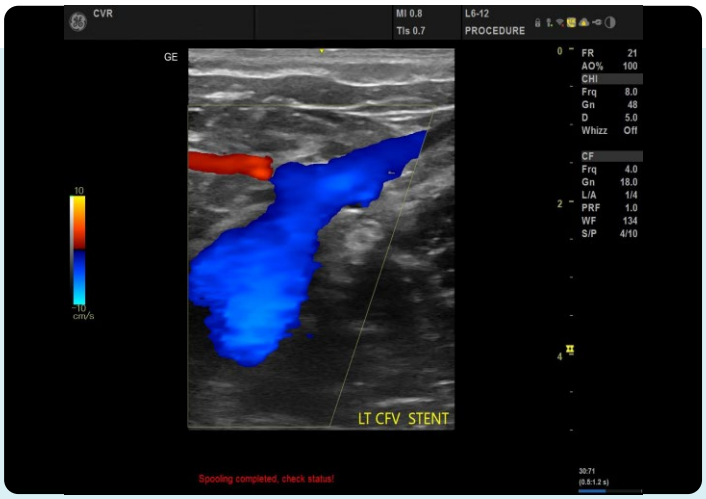



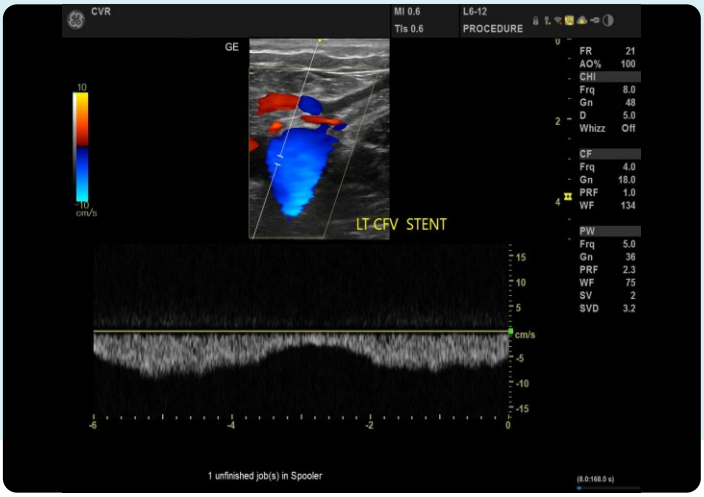

### Left external iliac vein stent evaluation

Transverse and longitudinal views of the left external iliac vein stent with and without color and spectral Doppler demonstrate a patent left external iliac vein.

# Bilateral iliofemoral stents *cont.*

## Clinical presentation *cont.*


### Left common femoral vein stent evaluation

Transverse view of the left common femoral vein stent with color and spectral Doppler demonstrate a patent left common femoral vein.

# Bilateral iliofemoral stents *cont.*

## Key findings

Exam shows patent iliofemoral stents bilaterally.

- There were no key features that were used to enhance the image quality.
- Ultrasound findings confirmed the iliofemoral stent remained patent and therefore had not discernible impact on the patient's current symptoms.
- No thrombus noted within the walls of the stent. No evidence of deep vein thrombosis in the vessels examined. Struts visualized and well opposed to the walls of vessel. There is 0% stenosis.

Endovascular venous stenting with open cell self-expanding stent implantation for treatment of chronic outflow obstruction is an efficacious and safe alternative to conservative therapy or open surgery.[1]

# Conclusion

This example shows the portable Versana Active ultrasound system provides versatility while maintaining image quality comparable to that of a traditional ultrasound console.

With the use of Versana Active, we were able to achieve optimal image quality in a technically difficult patient, without time-consuming image manipulation. It has the sensitivity to demonstrate both color and spectral Doppler of deeper vessels without image degradation or delays in the frame rate with triplex mode.

Bilateral iliofemoral stents were clearly visable with Versana Active and allowed for superior imaging of patent flow.

The portable Versana Active ultrasound system does not pose limitation with deep vein imaging vascular exams.

## Zayed Meadows B.S., RVT

### Registered Vascular Technologist

Zayed is the director of The Vascular Lab at the Center for Vein Restoration (CVR) where she oversees a team of sonographers who assist physicians in the diagnosis and treatment of venous disease through the use of ultrasound. Before moving to CVR in 2007, she worked as Vascular Technologist from 2000 to 2007. Zayed is a graduate of the University of Tennessee at Chattanooga (USA) with a B.S. in Exercise Science, Cardiopulmonary Rehab. She is trained in various modalities of vascular ultrasound, which consist of arterial, transcranial doppler, carotid, venous, and visceral studies.

1. Lichtenberg MKW, Stahlhoff WF, Stahlhoff S, Özkapi A, Breuckmann F, de Graaf R. Venovo venous stent for treatment of non-thrombotic or post-thrombotic iliac vein lesions - long-term efficacy and safety results from the Arnsberg venous registry. Vasa. 2021 Jan;50(1):52-58. doi: 10.1024/0301-1526/a000893. Epub 2020 Jul 22. PMID: 32697148.

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