

## Points

- Color Doppler is a useful technique for evaluating veins
- It allows direct visualization of the lumen and valves
- It can be used in acute and chronic conditions

## Color Doppler of Veins

– Dr. Saba Shaikh

Color Doppler (CD) is a technique that not only gives us information about the presence of blood flow in the veins but also tells us about the characteristics of their valves.

Venous blood flow abnormalities such as deep venous thrombosis (DVT), superficial venous thrombophlebitis and acute as well as chronic venous insufficiency can be evaluated accurately with a great degree of sensitivity and specificity. It has a major role in the follow up of patients with DVT and to assess response to treatment. It also provides assistance for endovenous ablation of varicose veins by either laser or using sclerotherapy techniques.

In whom should a venous Doppler study be advised?

In patients presenting with

- Sudden onset pain and swelling in the lower limbs (especially with a history of air travel)
- Heaviness and itching in the lower limbs
- Restless legs
- Evening cramps
- Recurrent phlebitis
- Bleeding from veins, non-healing ankle ulcers
- Visible leg veins

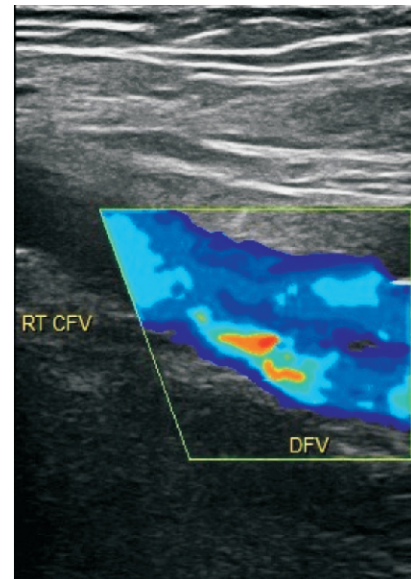


Fig. 1

Figure 1- CD of normal femoral vein (blue).

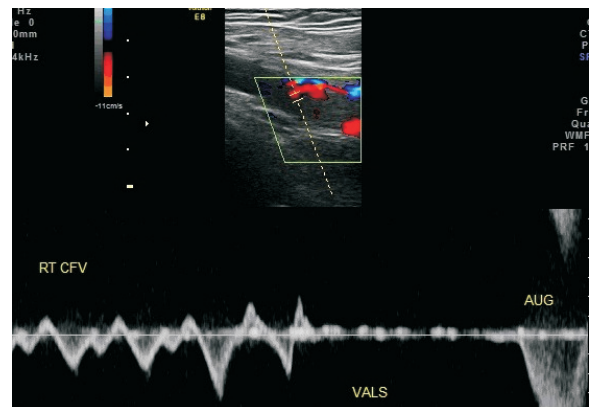


Fig. 2

Figure 2 - Spectral trace of a normal femoral vein on CD.

The online version is up at <http://www.piramaldiagnosics.com/radiology/spaces-newsletter/current-issue.aspx>

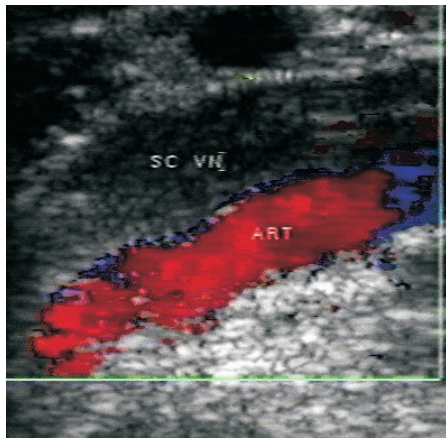


Fig. 3

Figure 3: CD shows thrombosis of the deep venous system (subclavian vein)

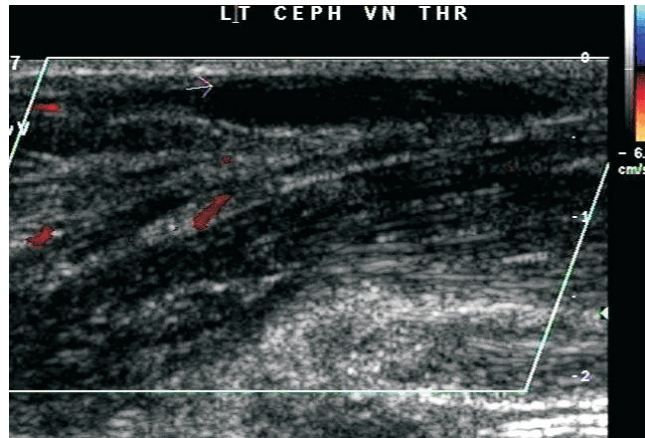


Fig. 4

Figure 4: CD shows thrombosis of the superficial venous system (cephalic vein)

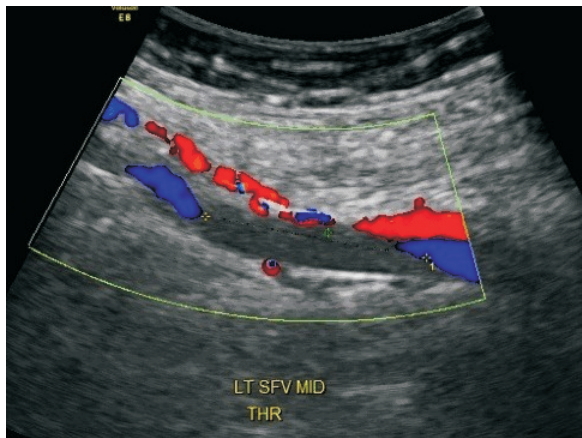


Fig. 5

Figure 5: CD shows thrombosis of the deep venous system (femoral vein)

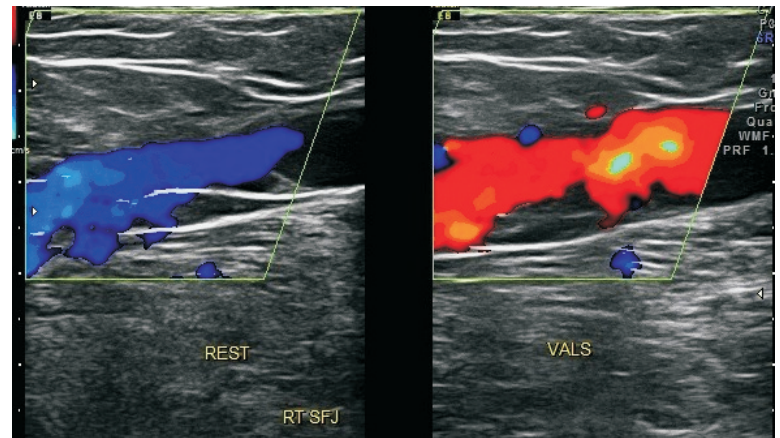


Fig. 6

Figure 6: Incompetent SF junction in a case of chronic venous insufficiency



Fig. 7

Figure 7: Patent reticular calf varicosity.

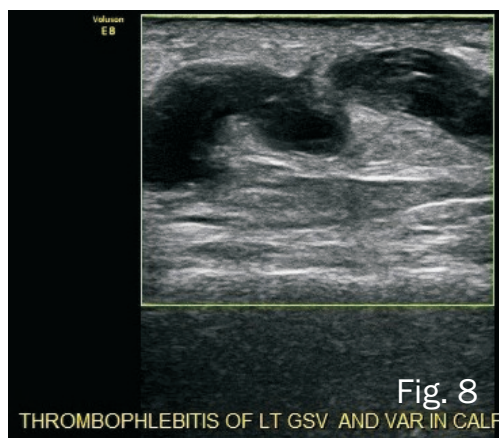


Fig. 8

Figure 8: Thrombosed reticular calf varicosity in case of superficial venous thrombophlebitis of the calf veins.

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