

## Relationship of venous clinical severity score with reflux and leg vein diameters based on ultrasonography in women workers with risk factors

Patrianef Darwis, author

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### Abstrak

**Introduction:** In 2010, the American Venous Forum developed a Venous Clinical Severity Score (VCSS) scoring system to assess the severity of Chronic Venous Insufficiency (CVI), where this system was said to be more comprehensive than the CEAP system. However, VCSS validation was still lacking. The purpose of this study was to examine VCSS for reflux and leg vein diameter based on ultrasonography. **Method:** This study was a cross-sectional diagnostic test on women workers with standing work positions of 114 people (228 limbs) in Jakarta. VCSS assessment and ultrasound examinations were carried out on all subjects. The relationship between VCSS with reflux and leg vein diameter was analyzed using an odds ratio with a 95% confidence interval. **Results:** From 228 examined limbs, the VCSS score of 0-3 was 18.4%, and the score of 4 was 81.6%. Reflux was found in 21.9% of the limbs. There was a significant relationship between VCSS and reflux in leg veins. The diameter of the great saphenous vein was between 2.1-12.2 mm, the femoral vein was 7.1-17 mm, the popliteal vein as 3-11.4, and the small saphenous vein was 1.7-7mm. When VCSS was analyzed for association with venous diameter, a significant relationship was found. VCSS sensitivity compared with reflux based on USG was 78%, specificity was 98.31%, positive predictive value was 92.86%, and the negative predictive value was 93.86%. **Conclusion:** From the results of this study, it was concluded that the VCSS score could be used as a method for assessing chronic venous insufficiency. Although VCSS is was to assess the severity of the chronic venous disease, VCSS can also be used for screening because it shows a good relationship with the reflux and venous diameter of the limbs based on ultrasound.