Central venous catheterization into the femoral vein

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A central venous catheter (CVC) is usually placed to replace the spilled blood volume or inject a vasopressor. Among central catheterizations, the anatomy of the femoral vessel is less complex than that of others, and femoral venous catheterization is most easily cannulated percutaneously. However, endovascular training should be considered to complete the deployment of the central catheter and prevent complications systematically. Therefore, this study aimed to share the precise CVC procedure in the femoral vein and to impart endovascular techniques through simulation video clips and pictures.

Key Words: Catheterization, Central venous, Femoral vein, Vascular access
excessive blood loss, hematoma formation, and guidewire damage.

When the guidewire appears through the brown opening of the catheter, the end of the guidewire is held by the opposite hand. The venous catheter is advanced over the guidewire into the femoral vein and stepwise advanced the entire length of the femoral catheter hub. When the catheter is properly inserted, the guidewire can be removed from the catheter. A trace of blood should be visible from each port, followed by subsequent flushing with sterile saline to verify the function and clean the line (1,4). The catheter is anchored to the skin with nonabsorbable sutures, and a sterile dressing is applied. A pelvic X-ray may help confirm the catheter placement (Fig. 3).

All procedures were recorded at the trauma center from Dankook University Hospital (Video) and based on central catheterization using the ARROW®CVC (Arrow, Zdar, Czech Republic).

Conflict of interest

No potential conflict of interest relevant to this article was reported.

Supplementary material

Supplementary data including one video can be found with this article online at www.traumaimpro.org.

Video 1. A video recording shows central venous catheterization into the femoral vein.

References