Introduction:
Ultrasound-guided cannulation is usually done using either longitudinal or transverse approach. The oblique approach utilizes advantages of both these approaches allowing visualization of the entire course of needle including tip and lateral discrimination of artery from vein [1]. The reported incidence of the complete overlap of femoral vein by the femoral artery is 8-10 percent[2,3]. We describe the use of the oblique approach for successful cannulation of such a femoral vein which is not possible by usual approaches.

Methods:
Case 1: A 36-year male, a diagnosed case of carcinoma right buccal mucosa was operated for wide local excision, right-sided neck dissection, and reconstruction. In immediate perioperative period, he sustained cardiac arrest due to exsanguinating bleeding from maxillary artery and pterygoid plexus needing external carotid artery ligation. Later in the course, hemodialysis was planed for acute kidney injury. Case 2: A 25-year male was under evaluation for multiple cervical lymphadenopathies and superior vena cava obstruction (SVCO). He presented to ICU with tumour lysis syndrome and life-threatening hyperkalemia requiring urgent hemodialysis.

Results:
In both the patients, neck vein cannulation was risky and screening ultrasound revealed a complete overlap of the femoral vein by femoral artery precluding its cannulation by traditional longitudinal or transverse approach. However, due to unavailability of safer alternatives, femoral vein cannulation was done under ultrasound guidance using oblique approach technique by the operator experienced in the oblique approach.

Conclusion:
Oblique approach allowed successful cannulation of the femoral vein completely overlapped by the femoral artery as it offers both the visualization of the entire course of the needle and lateral discrimination of artery from the vein.

(Written informed consent was obtained)

References:

Image:

ultrasound image showing the Needle path and vessels in the
Oblique approach