Supplementary material. Cannulation method details of two groups.

Comparison group (ultrasound guided percutaneous cannulation)

1. Femoral vessels are punctured by an 18G puncture needle while confirming with linear-type probe, in parallel with standard cardiopulmonary resuscitation continued as possible.

2. Guiding wire and cannula were inserted to appropriate position using sector type probe.
Exposure group (ultrasound and fluoroscopy guided percutaneous cannulation)

1. Femoral vessels are punctured using linear type ultrasonic probe as with comparison group.

2. Guiding wire is inserted to appropriate position using fluoroscopy.

3. The punctured site is dilated using a dilator; the direction of the dilator was matched with the direction of the guiding wire using fluoroscopy.
4. The position of cannula is confirmed using fluoroscopy.