To describe a single skin puncture technique combining subcutaneous injection of anesthetic to the depth of the vessel wall with venipuncture in the same movement” Murray et al (2018).

Abstract:

PURPOSE: To describe a single skin puncture technique combining subcutaneous injection of anesthetic to the depth of the vessel wall with venipuncture in the same movement.

TECHNIQUE: Using ultrasound guidance, controlled anesthetic instillation along the needle tract and outer vessel wall with a 21-G vascular access needle can be combined with vessel puncture. This technique reduces the number of skin punctures and ensures accurate anesthetic instillation. The maximum inadvertent intravascular dose of commercial local anesthetic preparations that can be delivered with a small syringe is far below toxicity thresholds.

CONCLUSION: A technique for combining anesthetic administration and vascular access with a 21-G needle and ultrasound guidance is feasible.

Reference: