The objective of this study was to evaluate the cannulation technique and to determine which factors are associated with each detail of the technique” Castro et al (2019).

Abstract:

INTRODUCTION: The vascular access cannulation technique varies among clinics, and guidelines on vascular access give little importance to cannulation techniques. The objective of this study was to evaluate the cannulation technique and to determine which factors are associated with each detail of the technique.

MATERIAL AND METHODS: The vascular access cannulation was evaluated in 260 patients undergoing hemodialysis. The type and anatomical location of the vascular access, the cannulation technique, direction, gauge, and distance between needles, besides bevel direction and needle rotation were registered.

RESULTS: The arteriovenous fistula was the most frequent vascular access (88%), the most used cannulation technique was area (100%), the needle direction was anterograde in most cases (79.5%), and the mean distance between the tips of needles was 7.57±4.43 cm. For arteriovenous grafts, the proximal anatomical location (brachial artery) and cannulation with 16G needles in anterograde position were more predominant. For arteriovenous fistulas, the distal anatomical location (radial artery) and cannulation through 15G needles were more common. Cannulation of vascular access in retrograde direction was associated with a
greater distance between needles (13.2 ± 4.4 vs 6.1 ± 3 cm, p < 0.001). Kt/V was higher when the distance between needles was higher than 5 cm (1.61 ± 0.3 vs. 1.47 ± 0.28, p < 0.01). CONCLUSIONS: The vascular access cannulation technique depends on the vascular access characteristics and expertise of cannulators. Clinical trials are required for the formulation of guidelines for vascular access cannulation.

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