

USE OF PLASTIC NEEDLES FOR EARLY ARTERIOVENOUS FISTULA CANNULATION



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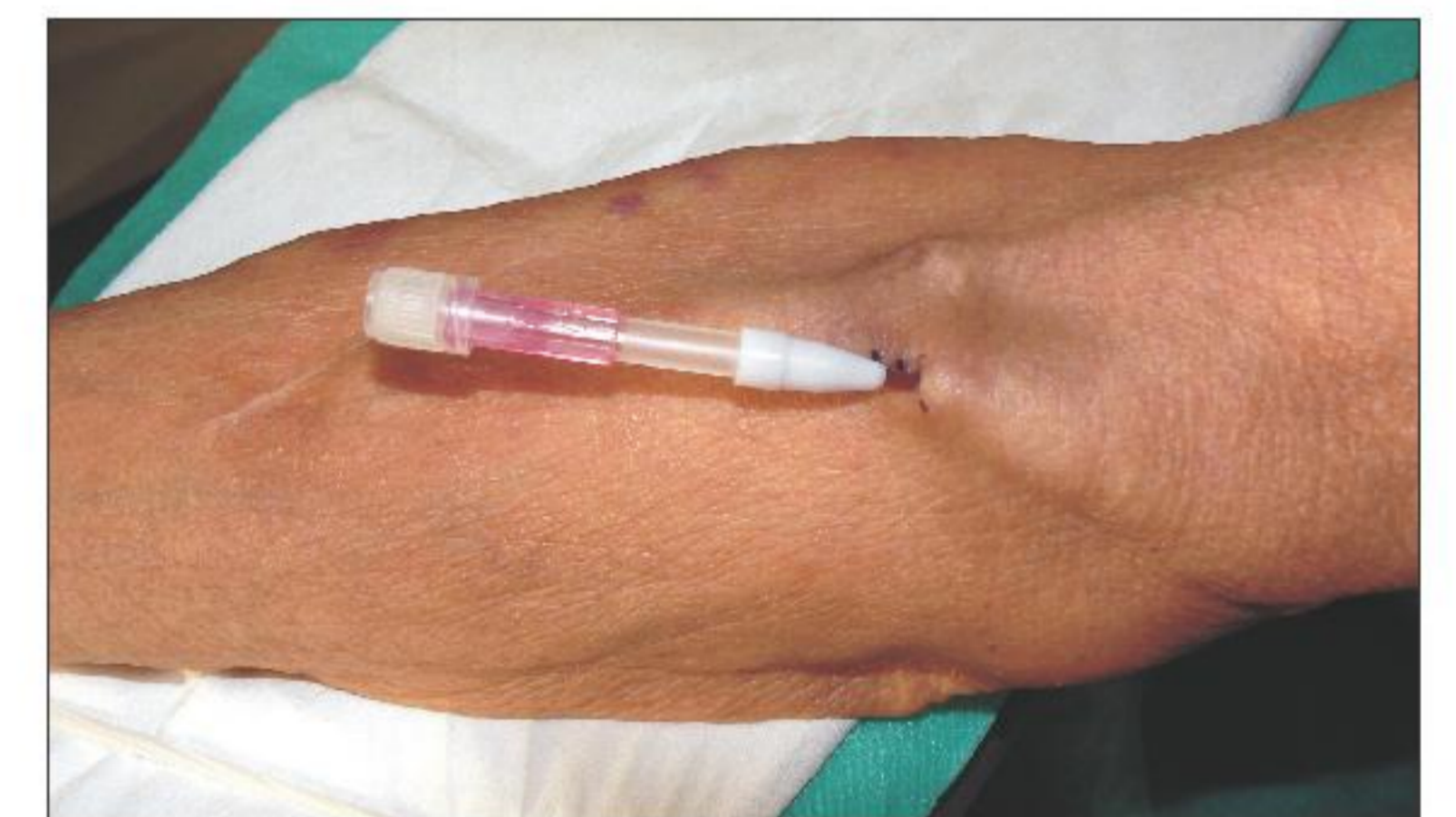
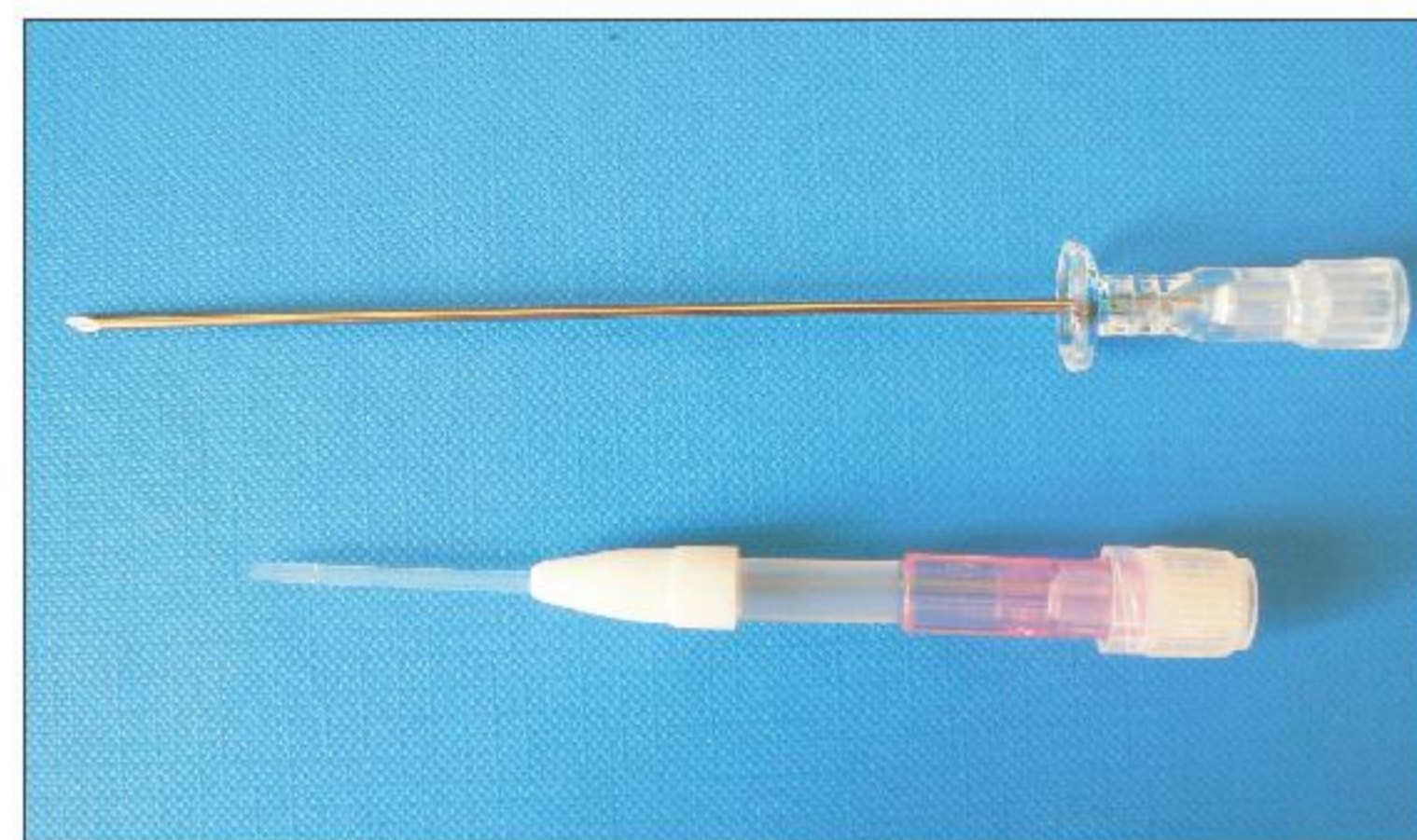
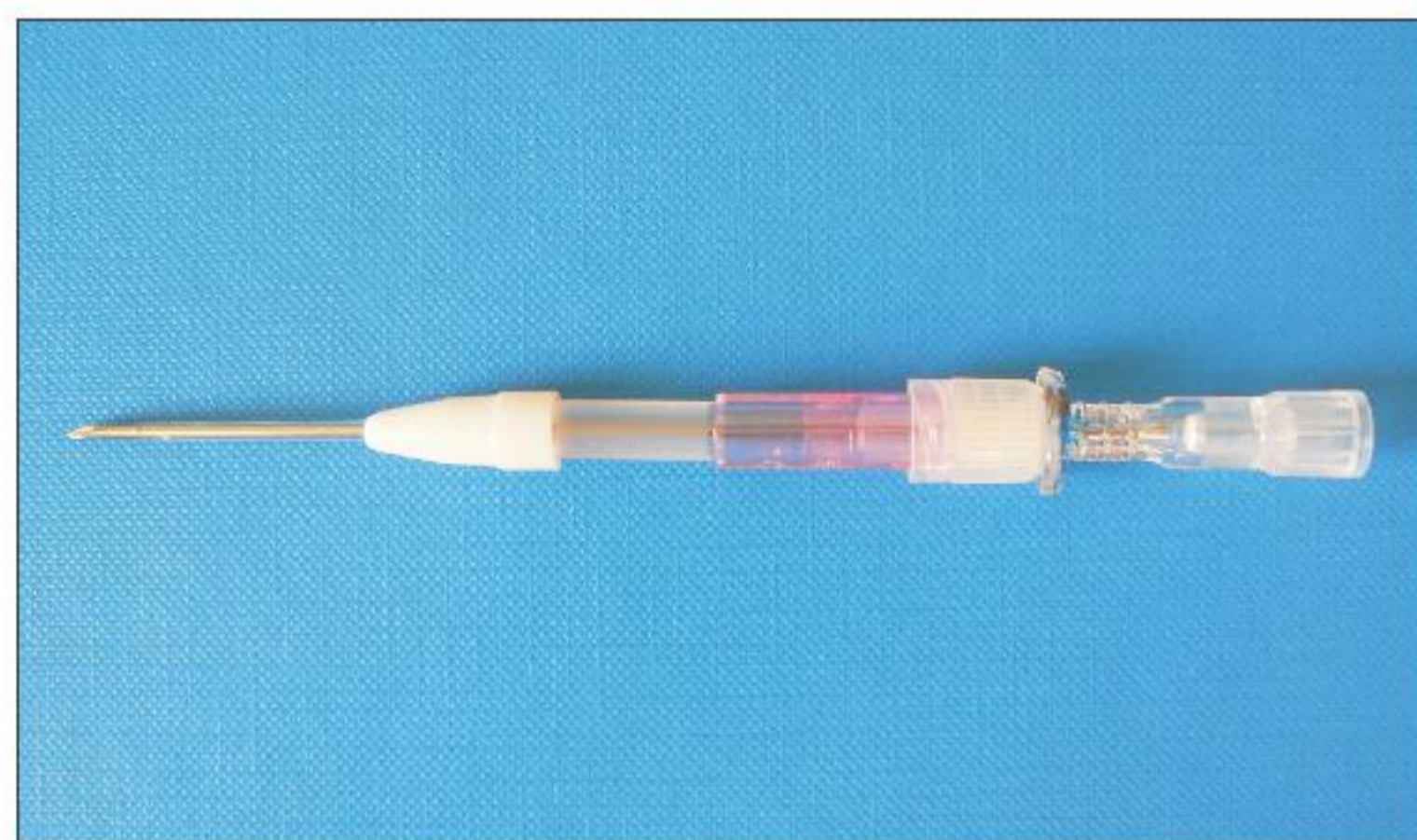
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INTRODUCTION AND AIMS:

The best type of vascular access is a native arteriovenous fistula (AVF). An autogenous AVF requires maturation before it can be used: at least 4 weeks (Vascular Access Society guideline) or 6 weeks (European Best Practice Guideline 2007). Earlier needling may result in haematoma formation, miscannulation or even access loss. The mentioned above complications can lead to necessity of catheter placement or prolong its use. Aim of this study was to examine if application of plastic dialysis needles can reduce the risk of early puncture complication and minimize the period of catheter use.

METHODS:

From May 2012 to January 2014 fluoroplastic dialysis catheters (Supercath™ CLS 502, 17 G 25 mm, Medikit) were used for early AVF cannulation in 22 patients. Early fistula use was defined as a first puncture within 30 days from access creation. All needling were performed by experienced nurse or nephrologist. The time of early AVF puncture, patients outcome and complications were recorded up to 4 weeks of follow-up.



RESULTS:

Study group consisted of 22 patients (14 males and 8 females), mean age 58.9 ± 22 years. AVF was located on forearm in 19 cases and on upper arm in 3 cases. Vascular access was cannulised early to shorten catheter usage in 17 patients (in case of complication or to prevent it) and avoid catheter placement in 5 patients. Period from fistula creation to first puncture was 2 to 29 days (mean time 10.2 ± 7.1 days). In all cases first needling was successful. The strategy was effective in 20 patients (90.9 %). In 2 patients complications occurred: access loss in 1 patient and necessity of temporary catheter placement in 1 patient.

CONCLUSIONS:

Use of plastic needle enables safe AVF cannulation within maturation process. It is an easy approach to minimize the risk of vessels perforation during dialysis. If applied reasonable it can minimize or even avoid catheter use.



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