

# 37 CASES OF STUCK CATHETER: RESULTS OF AN ITALIAN SURVEY

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## OBJECTIVES

An increasing number of cases of stuck catheter, mainly long term CVC, have been recently published as vascular access complication in hemodialysis.

In this setting, the CVC is not removable from a central vein using standard technique because of strict adherences with fibrin sleeve and vein wall.

Poor knowledge of the correct procedure for stuck CVC removal led often to catheter internalization in the past, but more recently different techniques of removal have been implemented.

Aim of the study is to describe the results of an Italian survey by which 19 dialysis facilities have experienced this complication over the last 2 years.

## METHODS

Data have been collected by a questionnaire sent by e-mail to Vascular Access Study Group of Italian Society of Nephrology.

Patient's demographics, risk factors for CVC stuck, CVC design and history, outcome of removal techniques have been reported

## RESULTS

37 cases of stuck tCVC recorded in 37 patients

20 M, 17 F, mean age 64,9 years

Site: jugular vein = 34, subclavian = 2, femoral = 1;

Side: right = 21, left = 16

Mean indwelling time : 54,1 months (range 4-150).

tCVC removal indication: dysfunction = 15, infection = 12, breakage/damage = 5, end of use = 5.

Previous CVC infections: 20/37 (54%)

12/37 (32%) had a with previous catheter in the same vessel.

CVC design: dual cath = 30, bilumen = 6, split cath = 1.

CVC material: poliurethane = 27; silicon = 10.

Endovascular site of adhesion: vein entry site = 12; caval

junction = 5, SVC = 6, IVC = 1, azygos vein = 1, right atrium = 1; iliac-femoral = 1; the others not reported.

### REMOVAL PROCEDURES:

In 4 cases the stuck CVC buried without any attempt.

Interventional radiology has been successful performed by different techniques : PTA balloon dilatation 12/13 cases (92%), snare/wire 5/8 (62%), sheath dilator 1/3 (33%).

Vascular surgery by cut down of the vein at entry site level had a lower rate of success 3/9 (33%).

Two patients underwent thoracotomy: 1 patient had the CVC removed, the other failed and patient died

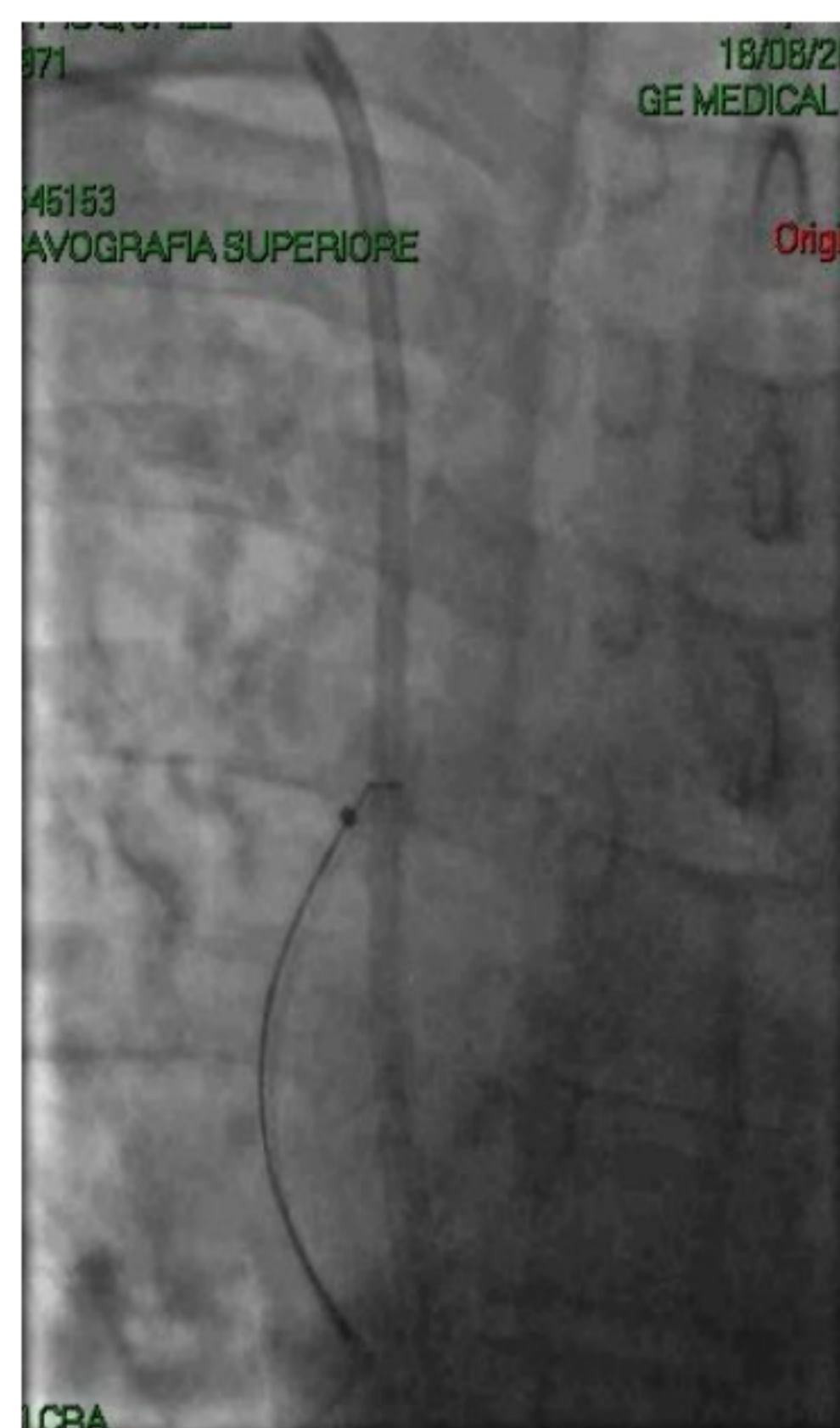


FIG. 1

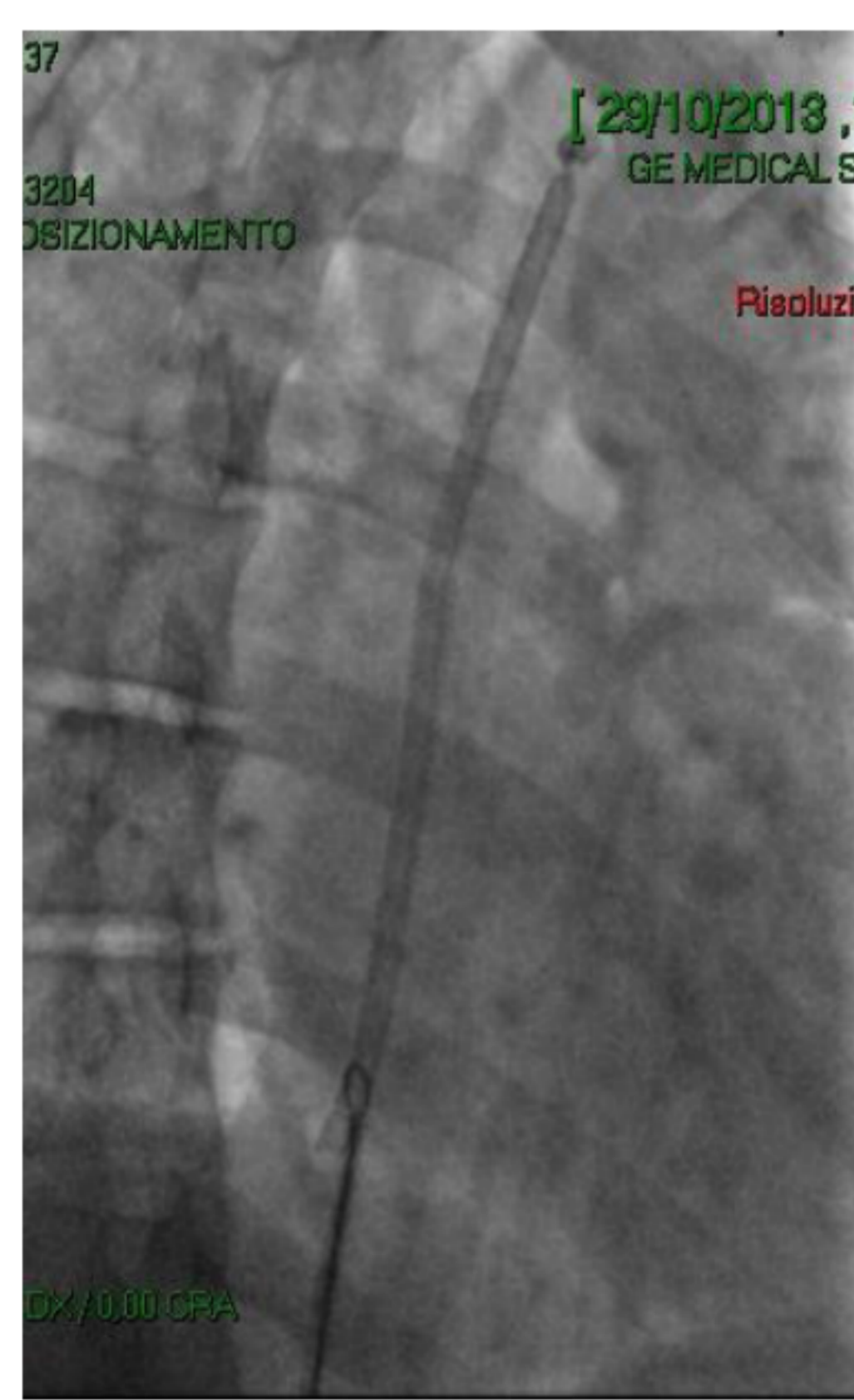


FIG. 2



FIG. 3

Fig 1: a stuck CVC captured by a snare

Fig 2: a stuck CVC cut, ligated and definitively buried

Fig 3: endoluminal dilatation by ballon PTA

## CONCLUSIONS

The survey confirmed the emerging role of stuck catheter as vascular access complication in hemodialysis. The role of long term indwelling time as important risk factor is confirmed, but sticking phenomenon may develop even after only few months. Left side, previous infections and catheterisms in the same vessel may contribute in the pathogenesis. Any design and material of CVC may be involved, where the high rate of dual cath observed probably reflects the preference of use in Italy of this CVC.

Interventional radiology techniques, especially PTA balloon dilatation, resulted to have the best outcome and should to be preferred over open surgery as first line approach

## REFERENCES

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