

The management of persistent withdrawal occlusion in venous ports – prospective survey in oncology patients

Maňásek V, Olosová L, Vertáková Krakovská B., Filáková I, Bagárová Z, Kociánová I, Chybová A, Drdová K. Oncology Center Agel, Nový Jičín, Czech Republic

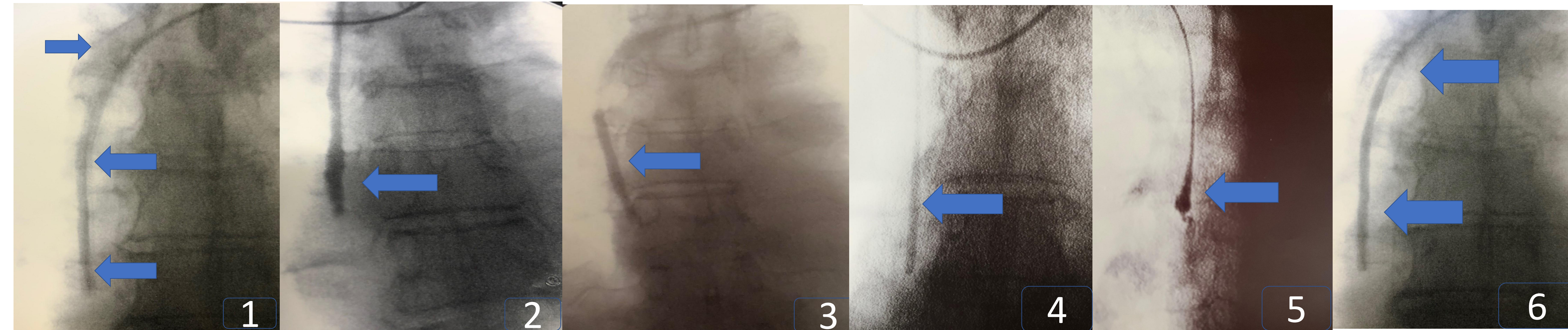
Introduction: We present a prospective survey focused on persistent withdrawal occlusions (PWO) in venous ports. After eliminating the mechanical cause of occlusion, the most common reasons for difficult withdrawal are obliteration of the catheter or the presence of a fibroblastic sleeve (FS).

Methods:

- Study period: 2 years (8/2020-7/2022)
- Cohort: 87 pts undergoing anticancer treatment with PWO phenomenon (18 men Φ 62 yrs, 69 women Φ 59 yrs), referred from oncology units at distance to 50 km from our centre, 119 attempts of PWO solution

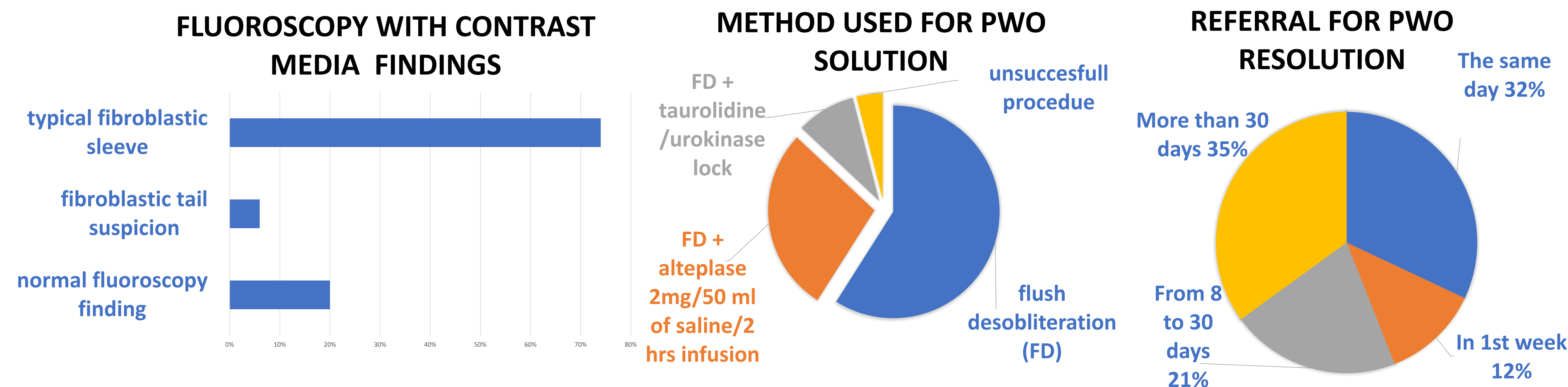
- Collected data: gender, age, diagnosis, ongoing treatment, the type and the site of the vein inserted, insertion bundle protocol compliance (ultrasound navigation and periprocedural tip location etc.), PWO first detected from port insertion in weeks, the period to referral in weeks.

Our procedure: Perform fluoroscopy and use the contrast medium if possible. In the case of the fibroblastic sleeve: flush desobliteration using a smaller syringe with saline was used first. If unsuccessful, the low dose thrombolysis with alteplase or taurolidin + urokinase administration was performed.



1-fibroblastic sleeve (FS) with false route of contrast medium in left brachiocephalic vein. 2,3,4,6 – FS, 5- FS combined with trombus on the distal part of the catheter with tight jet of contrast medium

Results: The FS was responsible for PWO in most cases. The average length of the FS was 5,5 cm (1-15 cm). The vein or the administered oncological treatment had no effect on the risk of occlusion. The average period of malfunction occurrence was 59 weeks after insertion. Approx. 30% of pts were sent to resolve the PWO on the same day of detection. More than 50% of pts were solved after more than a week, more than 30% of pts were solved after more than a month. The recurrence rate of PWO was 27 %. However, there was a 96% success rate (in 59% with using the flush disruption of the FS only, in 37% the patency was resolved when the thrombolytic agent was added).



Conclusions from our study: The occurrence of occlusions was 4 times more frequent in the female population. Only 30 % pts were sent to solve the PWO on the same day it was detected, it is highly possible that anticancer drugs were applied to the venous port without blood return for some period. The success rate of desobliteration using the flush disruption of FS in combination with thrombolytic agent application is high – there is often no need for port removal. Further investigation is needed to define factors leading to FS creation. PWO is responsible for non-legis drug administration with a higher risk of extravasation.