

**Single-lumen power-injectable peripherally inserted central catheters with no valve had a high gravity flow rate, were strong and not prone to rupture, tolerant to high-pressure injection, and were more suitable for femorally inserted central venous catheterization in patients with lung cancer undergoing chemotherapy”  
Xu et al (2018).**

Abstract:

**PURPOSE:** This study aimed to investigate the effects and complications of different types of peripherally inserted central catheters through femoral vein catheterization in patients with lung cancer undergoing chemotherapy.

**METHODS:** A retrospective analysis of 158 patients with lung cancer undergoing implantation of a venous access through femoral vein catheterization was performed. The patients were divided into two groups by convenience sampling: the single-lumen silicone Groshong peripherally inserted central catheters with valved tip were used in patients in group A, the single-lumen power-injectable polyurethane peripherally inserted central catheters with no valve were used in patients in group B. The gravity flow rate and indwelling time of the catheter and incidences of total obstruction, transient obstruction, irreversible obstruction, catheter-related thrombosis, catheter breakage, and accidental dislodgment were compared between the two groups.

**RESULTS:** The catheter indwelling time and incidences of irreversible obstruction, catheter-related thrombosis, and accidental dislodgment in the two groups were not statistically significantly different ( $p > 0.05$ ). The catheter gravity flow rate and incidences of total obstruction, transient obstruction, and catheter breakage were statistically significantly different between the two groups ( $p < 0.01$ ).

**CONCLUSION:** Single-lumen power-injectable peripherally inserted central catheters with no valve had a high gravity flow rate, were strong and not prone to rupture, tolerant to high-pressure injection, and were more suitable for femorally inserted central venous catheterization in patients with lung cancer undergoing chemotherapy.

Reference:

Xu, B., Zhang, J., Tang, S., Hou, J. and Ma, M. (2018) Comparison of two types of catheters through femoral vein catheterization in patients with lung cancer undergoing chemotherapy: A retrospective study. *The Journal of Vascular Access*. April 1st. .

doi: [10.1177/1129729818769227](https://doi.org/10.1177/1129729818769227).