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[Comparative Study](#) [Prog Urol.](#) 2016 Dec;26(16):1178-1184. doi: 10.1016/j.purol.2016.09.064.  
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## [Comparison of subinguinal microsurgical varicocelectomy vs percutaneous embolization in infertile men]

[Article in French]

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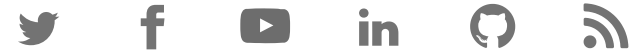
### Abstract

**Introduction:** Subinguinal microscopic ligation is the current standard of treatment of varicocele, and percutaneous embolization is a new alternative. We aimed to compare these procedures for reproductive and functional aspects.

**Material:** A consecutive series of 76 patients with clinical varicocele, alteration of semen parameters and infertility, undergoing either procedure (microsurgery in 49 cases and embolization in 27 cases) was prospectively analyzed preoperatively and postoperatively (at 1, 3, 6, 9 and 12 months). Outcome measures were: semen parameters, pregnancies, pain, side effects, recovery time and overall satisfaction. Subsequently, all patients were contacted by telephone in January 2015 (with a median delay of 4 years after the procedure) in order to determine reproductive events.

**Results:** Preoperatively, both groups were identical for clinical and biological items. We observed an improvement of sperm concentration at 3, 6, 9 and 12 months ( $P < 0.001$ ,  $< 0.001$ , 0.012, 0.018, respectively) and sperm motility at 6 months ( $P = 0.002$ ). The sperm concentration was higher at 6 months in PE group ( $P = 0.043$ ). With a median follow-up of 4 years after the procedure, 27

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pregnancies occurred (spontaneous pregnancy rate of 32%). There was no difference between procedures on the sperm quality, pregnancy rate and the overall satisfaction. Patients undergoing percutaneous embolization reported a faster recovery time (P=0.002) and less postoperative pain (P=0.007).

**Conclusion:** Both procedures give equivalent results regarding sperm quality, pregnancy rate and satisfaction even though recovery seems faster and postoperative pain seems lower after percutaneous embolization.

**Level of evidence:** 4.

**Keywords:** Embolisation percutanée; Infertilité masculine; Interventional radiology; Male infertility; Microchirurgie; Percutaneous embolization; Radiologie interventionnelle; Spermogram; Spermogramme; Subinguinal varicocelectomy; Varicocele; Varicocèle.

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