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Clinical Outcomes After Radiological Management of Varicoceles

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Abstract: Introduction: Percutaneous embolization of varicoceles has shown similar outcomes to surgery. However, there are advantages of radiological intervention as patients are not exposed to general anaesthesia, experience a quicker recovery and face a lower risk of major complications. Radiological interventions are also preferable after a failed surgical approach. We evaluate clinical outcomes of percutaneous embolization at a tertiary hospital in Sydney, Australia. Methods: Retrospective case series without a control group from a single site (Royal Prince Alfred Hospital, Sydney, Australia). A data search was performed on the interventional radiology database with the word "varicocele" between February 2017 and March 2022. 62 patients were identified. Each patient file was reviewed and included in the study if they met the inclusion criteria. Results: A total of 56 patients were included. 6 patients were excluded as they did not receive intervention after the initial diagnostic venography. Technical success was 100%. Complications were seen in 3 patients (5.3%). The complications included post-procedural pain and fever, venous perforation with no clinical adverse outcome, and a mild allergic reaction to contrast. Recurrence occurred in 3 patients (5.6%), all of whom received a successful second procedure. DISCUSSION: This study demonstrates comparable rates of technical success, complication rate and recurrence to other studies in the literature. When compared to surgical outcomes, the results were also similar. The main limitation is multiple patients lack long-term follow-up beyond 1 year, resulting in potential underestimation of the recurrence rate. Conclusion: Percutaneous embolization of varicocele is a safe alternative to surgical intervention.

Keywords: varicocele, interventional radiology, urology, radiology

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