Vasectomy techniques for male sterilization: systematic Cochrane review of randomized controlled trials and controlled clinical trials

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BACKGROUND: The review aimed to compare the effectiveness, safety and acceptability of vasectomy techniques for male sterilization. METHODS: We searched five computerized databases and reference lists of relevant articles and book chapters for randomized controlled trials (RCTs) and controlled clinical trials (CCTs) comparing vasectomy techniques. Two reviewers independently extracted data from eligible articles. RESULTS: Two poor-quality trials compared vas occlusion with clips versus a conventional technique, and four poor-quality trials examined vas irrigation with water versus no irrigation or irrigation with euflavine. No significant differences regarding the primary outcome of time to azoospermia were found. However, one trial reported fewer median number of ejaculations to azoospermia with euflavine rather than water irrigation. An interim report of a high-quality trial comparing vasectomy with and without fascial interposition found more azoospermia with fascial interposition but also more surgical difficulties. CONCLUSIONS: No conclusions can be reached regarding the effectiveness, safety and acceptability of vas occlusion techniques or vas irrigation since only low-quality, underpowered studies were available. Fascial interposition had improved vasectomy success but also increased surgical difficulty. High-quality, adequately reported RCTs are required. More work is also needed in the standardization of follow-up protocols, evaluation of vasectomy success and failure, recanalization and analytical methods.

Key words: controlled clinical trials/randomized controlled trials/review/vasectomy