from 15–48 d. Moreover, of three studies comparing alpha blockers directly to calcium channel blockers, only one reported an advantage for alpha blockers and only one was uncontaminated by adjunctive steroid use.

It is clear that adequately powered well-coordinated multi-centre prospectively randomised double-blinded clinical trials (perhaps coordinated by the EAU Research Foundation) are now urgently required to definitively examine the individual roles and cost-effectiveness impact of four different drug classes (alpha blockers, calcium channel antagonists, steroidal drugs, and nonsteroidal anti-inflammatory agents). These studies should consider use of these drugs in the context of facilitating ureteral stone passage within a reasonable time period (6 wk), for uncomplicated distal ureteral stones, as well as ureteral stones above the sacro-iliac joint, less than 1 cm in maximum diameter, with standardization of imaging to confirm stone free status. In addition to stone passage as an end point, impact on QOL and allied health economic factors could also be evaluated. There is also an opportunity to add to the basic science and translational knowledge base pertaining to the exact mechanism of action of these drugs, individually or in combination, for stones in different ureteral locations, where different smooth muscle receptor populations and ion channel densities exist.

Conflicts of interest: The author has nothing to disclose.

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Re: Reassessing the Value of Varicocelectomy as a Treatment for Male Subfertility with a New Meta-Analysis


Experts’ summary:
To reevaluate surgical varicocelectomy (high ligation, inguinal, microsurgery) in men with clinical varicocele as effective treatment for male subfertility, a new meta-analysis for pregnancy rates has been presented, including 396 patients and 174 controls. Only infertile men with palpable varicoceles and at least one abnormal semen parameter were enrolled. Controls were infertile men who declined surgical repair and who were randomly assigned to none or medical treatment. Infertile patients who had normal semen parameters, nonpalpable varicoceles, sclerotherapy, or radiologic embolization, and assisted reproductive technology (ART) (IVF/ICSI, IUI) of the female partner were excluded. The statistical analysis was based on the Potsdam Consultation regulations for the conduct and interpretation of meta-analyses. Technically, pregnancy rates have been followed up for 2 yr and have been analyzed using a “blinding” of all articles for the reviewers and a scoring system of 14 points with both preoperative and postoperative repeated measures of semen parameters as quality indicators. The acceptance of a study for inclusion was based on the determination of two reviewers. Following the Potsdam Consultation consensus, observational studies as well as randomized controlled trials were included. The statistical evaluation was done using specialized software especially developed for meta-analysis purposes (http://www.cochrane.org).

Out of 101 articles retrieved from the search containing pregnancy data, only five fulfilled the criteria for the analysis. The mean age of the cohort was 31.2 yr, left varicoceles were predominant, with 67.4 to 81.5 percent, and the varicoceles were all palpable. However, the grade of the lesion was not evaluable in all men. The controls of four of the five studies had no treatment, whereas, in one study, the controls used clomiphene citrate. The odds of spontaneous pregnancy after surgical therapy, compared with no medical treatment, were 2.87 (p = .007). Analyzing the number needed to treat, 131 pregnancies (33.0%) in 396 surgically treated vs 27 pregnancies (15.5%) in 174 controls, were confirmed. Based on these data, the authors conclude that surgical varicocelectomy is an effective treatment to improve the spontaneous rates for couples in infertile partnerships when the man has decreased semen quality and a palpable varicocele.

Expert’s comments:
There is an ongoing debate over whether varicocelectomy increases pregnancy rates in infertile couples in which a male subfertility factor has been identified. The European Guideline Group for Infertility of the EAU [2] considers the outcome controversial; however, expert groups of the American
Urological Association and the American Society for Reproductive Medicine [3,4] have suggested, despite all of the discussion, the option of correcting a varicocele in men with palpable lesions and abnormal semen parameters. Unfortunately, the available randomized studies on this approach provide no clear results on improving pregnancy rates. Differences in mean age of the partners and duration of infertility, high drop-out rates, different interventional techniques, the inclusion of subclinical varicoceles, and even men with normal ejaculate parameters, have been addressed by experts [5–8]. In an attempt to improve this situation, two meta-analyses, including the same group of randomized trials, could not come to the conclusion that varicocele treatment does improve subfertility [8,9]. Re-evaluating prior data [8], Ficana et al [9] calculated significantly better outcomes for surgery after removing studies with subclinical varicoceles and normal semen parameters. His group concluded that the data found in current literature does not allow counseling men in infertile partnerships against varicocele treatment [9].

In this newly presented meta-analysis, including only men with palpable varicocele and at least one abnormal semen parameter, all statistical data demonstrate a significant improvement of spontaneous pregnancy after surgery. What underlying causes are imaginable for this result? First, all men with subclinical varicocele have been excluded for the reanalysis. Subclinical varicocele is a sonographically based diagnosis which has to be confirmed by special tests, eg, Doppler or Duplex confirmation of reflux [10], techniques which the authors cannot confirm have been standardized in the included studies. Furthermore, the only prospective randomized study of treatment of subclinical varicocele failed to show a therapeutic benefit [11]. The second important argument for the positive results of surgical intervention is discussed by the authors themselves. Although not included in this paper, they indicated a close association of improving pregnancy results with improving sperm density after therapy. These results have been recently published elsewhere [12]. These findings reconfirm the importance of a good sperm quality, eg, high sperm densities for fertile populations [13,14].

In conclusion, the positive effect on pregnancy of surgical repair of palpable varicoceles in men with abnormal sperm parameters should be integrated into the suggested counseling for all couples with infertility.

Conflicts of interest: The authors have nothing to disclose.

References


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