

## Is verumontanum resection needed in transurethral resection of the prostate?

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### Abstract

Transurethral resection of the prostate is the mainstay for treatment of bladder outflow obstruction. It is a procedure that involves various complications and has a high success rate. In view of a recent publication presenting the effect of verumontanum resection on functional outcome and possible complications after TURP, the present manuscript presents the available evidence on the subject as well as the possible criticism about the technique suggested by the authors. The results available do not confirm that by resecting the verumontanum there is a clinically significant improvement in the functional outcome, however confirm that continence is not affected. The criticism probably lies in the fact that resecting such a small amount of tissue like the verumontanum (its size probably remains the same with few changes during lifetime) probably does not affect outcome, yet the resection of hyperplastic apical tissue around it may play a role in functional improvement.

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**Key words:** Transurethral resection; Prostate; Apical tissue; Verumontanum; Sphincter

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### INTRODUCTION

Transurethral resection of the prostate (TURP) remains the “gold standard” for surgical treatment of benign prostatic enlargement although other alternatives have been proposed<sup>[1]</sup>. However, this procedure involves several complications with probably incontinence being the most detrimental causing distress and affecting the patients' postoperative quality of life. It is caused by injury to the urinary sphincter during accidental advancement of the resection loop during the operation to the level distal from the verumontanum. Therefore by limiting the resection proximal to the verumontanum hopefully reduces the incidence of this devastating complication and acts as an anatomical boundary for prostate resection. Prostate size and resection time are the two most important factors that affect morbidity after TURP and thus a high level of experience is required to reduce complications such as incontinence<sup>[2]</sup>.

The authors of this article<sup>[3]</sup> address a very interesting issue and their scientific hypothesis that resecting as much prostatic tissue as possible improves outcomes after TURP was partially confirmed. There was a statistically significant improvement at 6 mo in the obstructive International Prostate Symptom score postoperatively for those patients who underwent verumontanum resection. Is that worth the increased risk of injuring the sphincter and causing incontinence? This proved not to be true in the present article since there was not a statistically significant difference in the incidence of incontinence between the groups who underwent or not verumontanum resection.

A point of criticism for this article is probably that resection of the minimal tissue of the verumontanum itself would not probably improve the efficacy of TURP. However, the resection of excessive apical prostatic tissue extending to the level of the verumontanum probably makes a difference in outcomes. The main disadvantage by resecting the verumontanum itself is that you lose an anatomical landmark which undoubtedly guides resection. Therefore the verumontanum should probably either be spared or resected at the final stage of the operation when all other prostatic tissue has been removed.

Another important issue raised is that the operation was performed by experienced surgeons and that is probably one of the key points of this article. Undoubtedly the primary aim of TURP is to remove as much hyperplastic prostatic tissue as possible in order to improve outcomes and decrease re-operation rates, especially in prostates who have excessive apical tissue, however, anatomical boundaries *i.e.*, the external urinary sphincter have to be respected in order to prevent incontinence.

In 1935 Nathaniel Alcock claimed that TURP "...cannot be taught and can be learnt only by hard, tedious expe-

rience"<sup>[4]</sup>. Therefore it is our firm belief that resection of the verumontanum and the apical prostatic tissue around it, is not a task for the novice TURP surgeon and therefore should be undertaken with extreme caution by experienced surgeons with careful respect of the prostatic anatomy.

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