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TAMSULOSIN APPLICATION FOR THE TREATMENT OF ADVANCED PROSTATE CANCER ACCOMPANILY WITH BLADDER OUTLET OBSTRUCTION

Hypothesis / aims of study
The pharmacological effectiveness and safety of tamsuolin for the combined therapy in the advanced prostate cancer associated with bladder outlet obstruction (BOO).

Study design, materials and methods
44 patients suffered from advanced prostate cancer were treated，then are randomly divided into the treatment group and control group. The treatment group included 22 patients who were treated with maximal androgen blockade (MAB) and tamsulosin（0.2mg,qn），Otherwise，only maximal androgen blockade (MAB) were used in the control group. A prospective study was performed to evaluate the patients involved in the investigation from international prostate symptom score (IPSS)，quality of life index scores, maximum urinary flow rate，prostate volume，post voiding residual (PVR) for about 4 or 8 weeks.

Results
At baseline there were no significant differences between the groups. After 4 and 8 weeks , the results showed that the IPSS、PVR、were significant decreased in the two groups after treatment($P<0.05$), but treatmenr group were much improvement in patients taking Tamsulosjn compared with the control. However,The prostate volume and PSA variation were no significant difference($P>0.05$). No severe adverse effect was observed in the treatment group.

Interpretation of results
Prostate cancer and benign prostatic hyperplasia are two different kinds of diseases,however,patients with prostate cancer is almost accompanied by varying degrees of benign prostatic hyperplasia.Consequently,bladder outlet obstruction caused by prostate cancer may have relationship to the varying degrees of benign prostatic hyperplasia and the urethra squeezed by the growing tumor.The above may be the reasons for the significant effects of tamsulosin in patients with advanced prostate cancer.
Urodynamic study has great significance to the determination of bladder outlet obstruction,detrusor function and therapeutic effect of palliative TURP surgery.Selective relaxation of prostate, urethra and vesical neck is the major effect of tamsulosin as a highly selective α1A receptor blocker.Therefore,the bladder outlet obstruction will be reduced and the contractile force of detrusor to empty urine will decrease.Then the emptying of the urine will be promoted consequently.With the maximam androgen blockade endocrine therapy, the growing tumor and bladder outlet resistance could be ulteriorly reduced through a combination of MAB and tamsulosin.Meanwhile,the α1D receptor could be blocked,irritation sign of bladder and lower urinary tract symptoms (LUTS) could be alleviated.Dynamic obstruction is also found in advanced prostate cancer because of the varying degrees of benign prostatic hyperplasia in patients with advanced prostate cancer,so tamsulosin could be used to relieve voiding dysfunction caused by dynamic obstruction for the improvement in urinary symptoms.

Concluding message
Tamsulosin is effective in improving lower urinary tract symptoms of advanced prostate cancer with bladder outlet obstruction,and significantly improve the quality of life of patients who can not tolerate palliative TURP.The combined use of MAB and tamsulosin is a safe and effective treatment option.

References
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Disclosures
Funding: Natural Science Foundation of Jiangsu(BK2011860) **Clinical Trial:** No **Subjects:** NONE