

## Histological Changes in Benign Prostatic Hyperplasia after Botulinum Toxin A Injection

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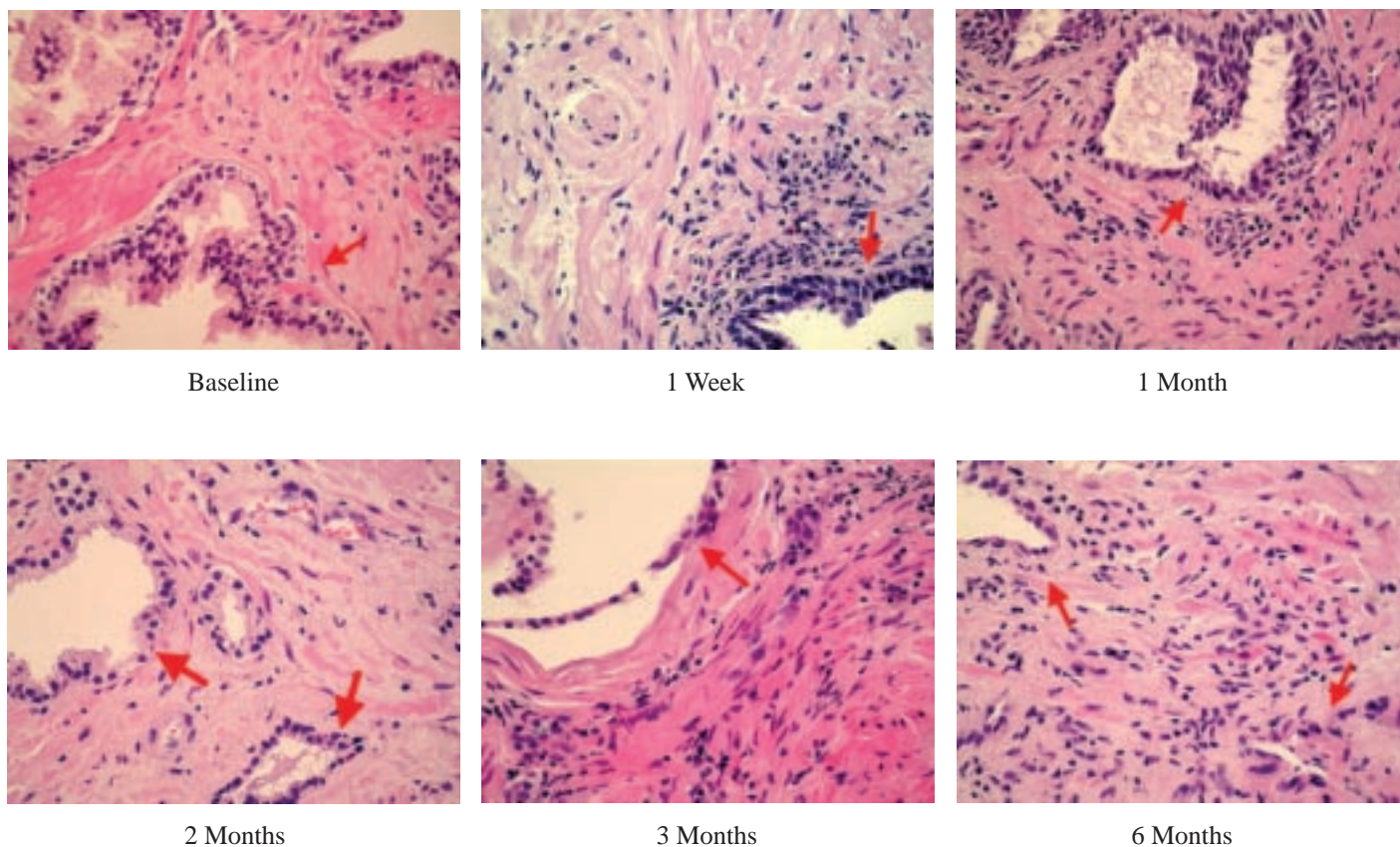
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An enlarged prostate consists of variable proportions of the glandular component, fibrous tissue and smooth muscles [1]. The pathology of BPH is heterogenous. The prostate is composed of glandular epithelia and stroma in proportions of about 20%-40% to 60%-80%, respectively [2]. After botulinum toxin A (BTX-A) injections, the prostate showed focal epithelial cell atrophy in the glands (arrows) and degenerative changes in smooth muscles in the stroma (arrow heads) compared with baseline. These histological changes were apparent 1 month after BTX-A injection, became prominent after 3 months, and lasted up to 6 months. Glandular atrophy was greatest at 4 months and smooth muscle degeneration was remarkable 2 months after BTX-

A treatment. At 6 months after BTX-A treatment the histological changes were still significantly different from baseline.

### REFERENCES

1. Bostwick DG: Pathology of benign prostatic hyperplasia. In: Kirby R, McConnell J, eds. Textbook of Benign Prostatic Hyperplasia. Oxford: Isis Medical Media, 1996, pp 91-104.
2. Costa P, Robert M, Sarrazin B, Mottet N, Navratil H: Quantitative topographic distribution of epithelial and mesenchymal components in benign prostatic hyperplasia. *Eur Urol* 1993; **24**:120-123.



**Fig.** The prostate shows focal epithelial cell atrophy in the glands (arrows) and degenerative changes in smooth muscles in the stroma at different time periods compared with baseline.