

Botox Bladder Injections for the Overactive Bladder

Botulinum A (Botox) is a poison made by the bacterium *Clostridium botulinum*, which causes a serious and sometimes fatal form of food poisoning ('botulism'). The serious consequences of Botox are due to its powerful action in blocking the transmission of nervous signals to muscles resulting in weakness and paralysis.

In recent years, minute doses of Botox have been used to treat a variety of medical disorders characterised by muscle overactivity and spasm. Although not yet licensed for use in the treatment of bladder overactivity, there is significant published evidence in relation to its effectiveness and safety in this condition. Its use in bladder overactivity is confined to patients who have not responded to intensive conservative treatment with physiotherapy and medications and to patients who have not been able to tolerate medications due to side effects or other medical conditions.

Patients having Botox injections for bladder overactivity require careful evaluation including urodynamics (a special test performed to investigate bladder function); treatment needs to be approved by a consultant experienced in the management of complex bladder disorders.

The injection is given using a needle which is inserted into the bladder through a special telescope (called a cystoscope); up to 30 sites are injected under direct vision using a camera system connected to the cystoscope. General or spinal anaesthesia is used and the patient is either discharged home the same day or the following day. Antibiotics are administered to minimise the risk of urinary tract infection.

Between 40 and 80 % of patients will experience a significant improvement in their bladder symptoms in the weeks and months after the injection; however, the beneficial effect is usually temporary and the injection may need to be repeated after an interval of 6 months or more. If there is no response to the initial injection a second 'higher dose' injection may be given.

Approximately 25 % of patients will have significant bladder emptying problems after Botox injection; this usually comes on days to weeks after the procedure and frequently requires the patient to pass a catheter into her bladder a few times per day in order to empty; the patient is trained how to do this by midwives and nurses who are very experienced in teaching this technique; the emptying difficulty is almost always a temporary phenomenon.

Complications of Botox include the following:

- Failure to improve symptoms

- Pain in the bladder and urethra
- Blood in the urine
- Urinary tract infection
- Headache
- Flu-like illness
- Muscle weakness with double vision, difficulty talking, swallowing and breathing (very rare).

Patients are advised to contact the hospital immediately in the event of any symptoms relating to muscle weakness.

Although the majority of patients who undergo this type of surgery are satisfied with the outcome, a small percentage are not and may regret having surgery as their post-operative symptoms are worse.

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