

EFFECTS OF ANTICHOLINERGIC AGENTS ON EFFICACY OF PENILE VIBRATORY STIMULATION TO OBTAIN EJACULATION IN SPINAL CORD INJURED MALES

Hypothesis / aims of study

In spinal cord injured (SCI) males use of antimuscarinics and injection of botulinum toxin in the detrusor are the suggested treatments to treat neurogenic detrusor overactivity (NDO). Penile vibratory stimulation is the first line treatment in neurogenic anejaculation.

In a previous evaluation we found a reduction of success rate of PVS in detrusor areflexia induced by anticholinergic agents. The aim has been a prospective study of success rate of PVS related on treatment of OAB in SCI males patients.

Study design, materials and methods

120 SCI males with NDO due to upper motor neurolesion (UMNL) and anejaculation were submitted from september 2005 to april 2011 to PVS inside our protocol for sexual rehabilitation after SCI.

All the patients were under treatment by antimuscarinic drugs or submitted to botulinum toxin injection into detrusor muscle.

All patients were submitted to two PVS test, during the period of maximal effect of the treatment of NDO as first line treatment to obtain anterograde ejaculation using Ferticare personal System with a frequency of 90 Hz or more and amplitude between 2.5 and 3 mm..

All patients that obtained anterograde ejaculation were submitted to spermogram.

In front of failure of the test, on answer and consent of the patient, we adopted as method of surgical sperm retrieval a testicular sperm extraction (TESE) with crioconservation.

Results

Ejaculation by PVS was obtained only in 21 patients (17%). In 15 patients non responders we repeated the PVS test at appearance of NDO before retreatment with botulinum toxin in front of reappearance of NDO. In these cases we obtained anterograde ejaculation with good fertilization potential.

Interpretation of results

Use of PVS represents the first step in our neuroandrological program to restore ejaculation and to obtain good quality material: the method is simple and cheap.

In the past literature related on this procedure referred higher success rate than what is today obtained.

The observation is that concomitant use of antimuscarinic drugs and/or botulinum toxin into detrusor has high potential to reduce the effect.

Concluding message

In front of these observations today in our protocol is mandatory to inform the patient about this situation related on a multidisciplinary approach of sacral area dysfunctions in SCI . To achieve better results with PVS before a program of surgical sperm retrieval it's possible to temporary reduce antimuscarinics or to try before botulinum toxin reinjection.

Disclosures

Funding: none **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** retrospective and prospective evaluation of clinical data **Helsinki:** Yes **Informed Consent:** Yes