

ABSTRACT

Key words : Intracavernous injection of prostaglandin E₁
Psychogenic impotence
Sexual anxiety
Penile and systemic norepinephrine level

This study was performed to understand the mechanism of intracavernous injection of prostaglandin E₁ producing spontaneous erection and recover the erectile function in psychogenic impotence, especially in relation with the role of norepinephrine.

The hypotheses of the study were (1) intracavernous injection of prostaglandin E₁ inhibits norepinephrine release in corpus cavernosum thereby elicits spontaneous erection in psychogenic impotent patients, (2) erection obtained and the ability to have sexual intercourse produce decreased sexual anxiety, and (3) decreased sexual anxiety inhibits systemic norepinephrine release thereby produces recovery of the erectile function.

The samples were 30 psychogenic impotent males aged of 25-49 years old selected by systematic random sampling. Samples were then divided into two groups by random permuted blocks into treatment group (20 samples) and control group (10 samples).

This study is an experimental study using the design of pre-post test control group. Before treatment, samples answered the questionnaire for testing erectile ability and for testing the anxiety of sexual failure. Before treatment, the systemic blood was drawn from both groups for norepinephrine level examination. During treatment, the treatment group received intracavernous injection of prostaglandin E₁ in optimum dose once weekly, whereas

the control group received intracavernous injection of 1ml NaCl once weekly. Totally 4 injections were given to each sample.

In the fourth injection, after full erection achieved in the treatment group, the penile and systemic blood were drawn. In the control group, the systemic blood was drawn at the same time with full erection. At detumescence, the penile blood of the treatment group was drawn again, whereas in the control group the systemic blood was drawn at the same time with detumescence.

After the study, that was one month after the last injection, the systemic blood of both groups were drawn again for norepinephrine level examination. Finally samples answered the same questionnaire.

The data were analysed statistically by normality test (Kolmogorov Smirnov Goodness of Fit test), homogeneity test, Student's t test, and regression.

The results showed that the hypotheses were received and the objectives were achieved.