

THE ASSOCIATION OF URINARY INCONTINENCE AND DEPRESSION

Aims of Study

Neuropharmacological evidence indicates that some forms of depression are associated with urge urinary incontinence, because of a reduction of the inhibitory serotonergic input to sacral interneurons projecting to bladder preganglionic fibers. The reduction in serotonin causes a net decrease in inhibition and predispose to detrusor unstable contractions.¹ The aims of this study were to detect the frequency of types of urinary incontinence and detrusor instability in a group of incontinent patients with and without depression to verify if urge urinary incontinence and detrusor instability are linked to depression.

Methods

Of 655 patients observed over 15 months, 280 (44 males and 236 females), were referred to our unit because of urinary incontinence. Cases were classified as urge, stress or mixed urinary incontinence based on history, physical examination and urodynamics; the presence of detrusor instability and bladder outlet obstruction (BOO) were also investigated and determined according to ICS Standards. The diagnosis of depression was based on a positive history requiring counseling and pharmacotherapy. We investigated the types of urinary incontinence (stress, urge and mixed), the frequency of detrusor instability and BOO in all incontinent patients (depressed or not depressed) and the correlation between depression and urinary incontinence and idiopathic detrusor instability. χ^2 test and McNemar test were used and the significance level was set at $p < 0.05$.

Results

Results are summarized in Tab. 1.

Twenty nine patients (10.3 %) complained of depression and urinary incontinence, while only 8/375 (2%) continent patients were depressed ($p = < 0.0001$). The frequency of urge incontinence was significantly increased in patients with depression as compared to that of patients without depression ($p < 0.01$). The frequency of SUI was significantly related to depression, ($p < 0.05$), while we did not observe any relationship between mixed urinary incontinence and depression. Idiopathic detrusor instability significantly correlated with depression ($p < 0.05$).

Tab. 1 *Patients characteristics*

depression	Urge		Stress		Mixed		Instability		BOO	
	No. pts	%	No. pts	%	No. pts	%	No. pts	%	No. pts	%
yes	26	89.6	15	51.7	12	41.4	12	52.2	6	20.7
not	165	65.7	177	70.5	91	36.2	42	28.9	121	48.2

Conclusions

The relationship between depression and urge urinary incontinence and detrusor instability is supported by an association between the two conditions and a common neuropharmacological basis for urinary incontinence and depression. Our data support the hypothesis that a reduction in serotonergic neuronal transmission leads to detrusor instability. The detection of depression in our patients was probably underestimated and the use of standardized questionnaires investigating depression may have detected a larger number of patients with the disease. The small number of patients with incontinence and depression in the present study does not exclude the possibility that incontinence could lead to depression, therefore prospective controlled studies with larger numbers of patients are required.

References

1. Lesch, K.P.: 5-HT_{1A} receptor responsivity in anxiety disorders and depression. Prog. Neuro-Psychopharmacol. Biol. Psychiat., 15: 723, 1991.