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URODYNAMIC INVESTIGATION OF INCONTINENCE WITHOUT TRANSURETHRAL CATHETERIZATION – THE DIAGNOSTIC ACCURACY OF CLP-MEASUREMENT

Aims of Study

At the last year's ICS meeting we presented a new minimal invasive computerized Cough Leak Point (CLP) measurement system as a new tool in the diagnosis of stress urinary incontinence [1]. The measurement technique does not use a transurethral catheter to avoid the influence of the catheter on the leak event and is able to quantify incontinence urodynamically minimal invasive for the first time. The aim of the study was the investigation of the diagnostic accuracy of the system to distinguish between various incontinence types (stress, urge and combined).

Methods

In 80 female patients with urinary incontinence (mean age 58 years) cough leak point pressure, leak-Qmax, leak-volume (multiple cough events), cystometry and urethral pressure profile under rest and stress conditions (minimal in duplicate) were measured. The conventional diagnosis were made by using all clinical information as history, stress test and conventional urodynamics (reference diagnosis). Two independent investigators without knowledge of reference diagnosis were asked to diagnose incontinence type by using the curves of CLP alone together with patients age and history (blind diagnosis).

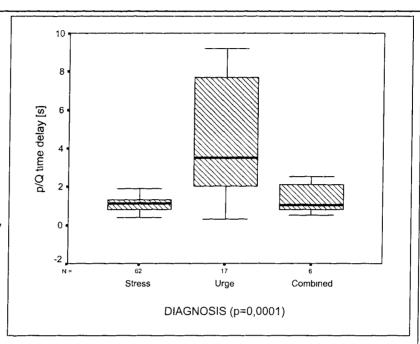
Results

According to reference diagnosis incontinence were defined as stress in 58 females (72,5%), as urge in 17 females (21,3%) and as combined in 5 females (6,3%). The diagnosis of the two independent investigators resulted in 93,8% or 87,5% of correct and 2,4% or 5% incorrect decisions. The diagnosis were half-correct (stress or urge as combined or vice versa) in 3,8% or 7,5% of the patients. In the analysis of the diagnostic algorithm the minimal time delay between pressure and leak flow were proved to be most important (Fig.).

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Conclusions

The definition of incontinence type by using CLP-measurement is possible with a high diagnostic accuracy. The results show that the avoidance of transurethral catheterization is no disadvantage and causes its minimal invasivity and optimal time saving. Therefore, it seems to be an ideal screening tool in the diagnosis of urinary incontinence



1. Höfner K, Oelke M, Wagner T, Mebert J, Jonas U (1999) Cough leak point pressure (CLPP) - development of a new method for routine use and testing of clinical reliability. Neurourol Urodyn 18: 249-250