

ARTERIAL STIFFNESS PREDICTS THE LEVEL OF THE PHARMACOLOGICAL INDUCED ERECTILE RESPONSE IN METABOLIC SYNDROME

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ABSTRACT

OBJECTIVE: Watching the erectile capability in metabolic syndrome (MetS) after Sildenafil usage for erectile dysfunction (ED), according to the arterial stiffness (AS).

DESIGN AND METHODS: In 216 men ($44,72 \pm 5,28$ years old) with MetS (IDF criteria), pulse wave velocity (PWV) and erectile function were assessed. In 97 of them (44.9%) ED was found using the IIEF-5 questionnaire (V_1). For PWV a Complior^{SP} ultrasound device were used also at V_1 . The erection degrees (penile tumefactions) were determined at V_1 , V_2 , after 8 weeks of Sildenafil 50 mg, for the all participants, and at V_3 after 4 weeks of Sildenafil 100 mg usage, only for those who maintained erectile levels $\leq 2^\circ$ after V_2 . Results were expressed in percentages (%) and by calculating p value significance.

RESULTS: 1) According to PWV there were: Group A: PWV>10 m/s, highly increase AS (34 men, 35.05%); Group B: PWV=7-9,9 m/s, increased AS (30 persons, 30,92%); Group C: PWV<5 m/s, non-increased AS (15 persons=15.46%); Group D: PWV between 5.1-6.9 m/s, non-relevant (18 men, 18.57%).

2) IIEF-5 score were: V_1 : group A= 8.67 ± 2.4 vs. group C= 11.09 ± 1.82 , ($p=0.07$); V_2 : group A= 14.1 ± 0.66 vs. group C= 19.67 ($p=0.04$).

3) Prevalence of the erections (penile tumefactions) between 3° - 4° of intensity:

Groups	V_1 : Nr(%)	V_2 : Nr(%)	p	V_3 : Nr(%)	$p_{V1 \text{ vs. } V3}$	$p_{V2 \text{ vs. } V3}$	$p_{\text{gr.A (V3) vs. gr. C (V2)}}$
A	8 (23.54)	10 (29.41)	0.8	23 (67.65)	0.001	0.001	0.06
C	7 (46.67)	12 (80.0)	0.001	-	-	-	-

CONCLUSION: Arterial stiffness initially indicates a worse ED score in metabolic syndrome persons and predicts the level of the erectile response to Sildenafil. High PWV could reasonable recommends increasing Sildenafil doses.