



## Erectile outcomes in 6,801 men with cardiovascular risk treated with LI-SWT in four Latin American countries

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### Introduction

Erectile dysfunction (ED) is a prevalent condition in men over 40 and is closely associated with cardiovascular risk factors. ED may even represent an early manifestation of coronary artery disease and peripheral vascular disease. This study aimed to assess how cardiovascular risk factors influence erectile improvement after comprehensive treatment with medication and low-intensity shockwave therapy (LI-SWT) in men with ED from four Latin American countries.

### Material & Methods

A retrospective observational study was conducted. Clinical records of men treated with oral medications and a 6-session LI-SWT protocol at Boston Medical Group centers in Colombia, Ecuador, Mexico, and Peru between 2019 and 2024, were revised. The prevalence of cardiovascular risk factors (age >40, diabetes, hypertension, hyperlipidemia, myocardial infarction, obesity, tobacco use) was estimated and evaluated their impact on erection hardness and clinical improvement, using multivariable logistic regression to adjust for confounders.

### Results

A total of 6,801 men met the inclusion criteria. The mean age was 54 years (SD 12.2); 47.5% had moderate ED and 25.7% had severe ED. Overall, 92.5% had at least one cardiovascular risk factor, with Mexico having the highest prevalence (96.6%). Diabetes was the most common condition (30.8%), followed by hypertension (29.1%) and obesity (27.1%), with country-level variations (Table 1).

Table 1. Prevalence of cardiovascular risk factors by country

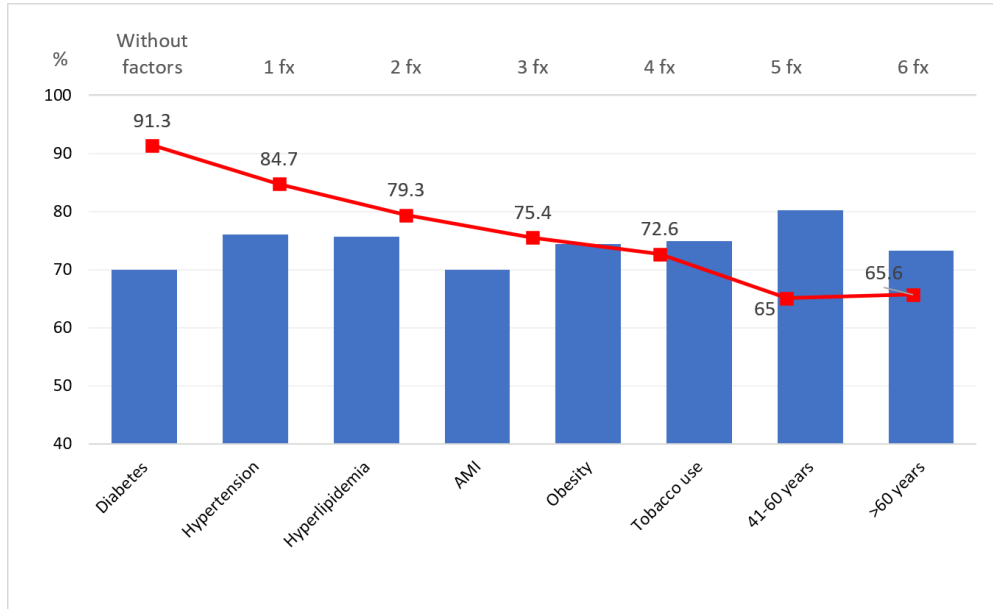
	Colombia (n=1805)	Ecuador (n=470)	Mexico (n=3908)	Peru (n=618)	Total (n=6801)
Diabetes	270 (14.96%)	136 (28.94%)	1561 (39.94%)	131 (21.2%)	2098 (30.8%)
Hypertension	449 (24.88%)	152 (32.34%)	1237 (31.65%)	145 (23.46%)	1983 (29.1%)
Hyperlipidemia	468 (25.93%)	55 (11.7%)	935 (23.93%)	127 (20.55%)	1585 (23.3%)
AMI	50 (2.77%)	6 (1.28%)	85 (2.18%)	6 (0.97%)	147 (2.1%)
Age					
41-60 years	889 (49.25%)	205 (43.62%)	2119 (54.22%)	290 (46.93%)	3503 (51.5%)
>=61years	475 (26.32%)	210 (44.68%)	1406 (35.98%)	195 (31.55%)	2286 (33.6%)
Obesity	336 (18.61%)	96 (20.43%)	1308 (33.47%)	105 (16.99%)	1845 (27.1%)
Tobacco use	331 (18.34%)	50 (10.64%)	1029 (26.33%)	65 (10.52%)	1475 (21.6%)

Among 3,525 men who initially reported an inability to penetrate, 78.1% were able to do so after treatment. However, as the number of cardiovascular risk factors increased, the probability of



erectile improvement decreased (Figure 1). Patients with diabetes or prior myocardial infarction showed lower improvement rates (Figure 1). Multivariate analysis revealed that age >60 (OR 2.02; 95% CI 1.49–2.74) and diabetes (OR 1.79; 95% CI 1.53–2.09) were significantly associated with failure to regain penetration ability. Conversely, completing at least 6 sessions of LI-SWT reduced this risk by approximately 35% (OR 0.65; 95% CI 0.55–0.76).

Figure 1. Proportion of patients who achieved penetration after treatment, according to the type and number of cardiovascular risk factors



**Discussion**

Cardiovascular risk factors, particularly diabetes, negatively influence the outcomes of ED treatment with medication and LI-SWT. The number of shockwave sessions also plays a key role in treatment efficacy. These findings highlight the importance of addressing cardiovascular health and ensuring adherence to the full LI-SWT protocol to optimize erectile outcomes in men with ED.