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**(302) THE EFFECTS OF PDE5I ON PSYCHOLOGICAL WELL-BEING IN ED PATIENTS**

*Dr. Federico Belladelli<sup>1,2</sup>, Dr. Edoardo Pozzi<sup>1,2</sup>,  
Dr. Alessandro Bertini<sup>1,2</sup>, Dr. Christian Corsini<sup>1,2</sup>,  
Dr. Massimiliano Raffo<sup>1,2</sup>, Dr. Fausto Negri<sup>1,2</sup>,  
Dr. Marco Oddo<sup>1,2</sup>, Dr. Luigi Candela<sup>1,2</sup>,  
Dr. Paolo Capogrosso<sup>3</sup>, Dr. Luca Boeri<sup>4</sup>, Alessia d'Arma,  
MSc/MA<sup>2</sup>, Prof. Francesco Montorsi<sup>1,2</sup>,  
Prof. Andrea Salonia<sup>1,2</sup>*

<sup>1</sup>Vita-Salute San Raffaele University, Urology, Milan, Italy

<sup>2</sup>IRCCS San Raffaele Hospital, Urology, Milan, Italy

<sup>3</sup>ASST Sette Laghi – Circolo e Fondazione Macchi Hospital,  
Urology, Varese, Italy

<sup>4</sup>Fondazione IRCCS Ca' Granda Ospedale Maggiore,  
Urology, Milan, Italy

**Objectives:** Phosphodiesterase 5 inhibitors (PDE5i) are considered among the first-line treatment options for erectile dysfunction (ED). Their impact in terms of long-term psychological well-being has been scantily analysed. This retrospective

cross-sectional study aimed to investigate PDE5i effects on psychological well-being in a cohort of ED patients.

**Methods:** Complete data from the last 437 sexually active heterosexual men seeking medical help for ED and treated with PDE5i were analysed. Health-significant comorbidities were scored using the Charlson comorbidity index (CCI). All patients completed the International Index of Erectile Function (IIEF). Response to PDE5i therapy was defined as any improvement in IIEF-Erectile Function domain. Duration of PDE5i use was defined as the time passing from the prescription date to the last visit reporting PDE5i discontinuation or the last follow-up. Likewise, all men completed the Beck Depression Inventory (BDI) at baseline and at the last visit. Descriptive statistics and Cox regression model tested the association between PDE5i response and any improvement in BDI scores. Cumulative Incidence (CI) curves were used to define the minimum time needed for BDI score improvements throughout the follow-up.

**Results:** Median (IQR) age was 55 (43-62) years and BMI was 25.3 (23.1-27.4) kg/m<sup>2</sup>. 98 (22%) and 77 (18%) men were active smokers and presented with CCI $\geq$ 1, respectively. The median treatment duration was 12.86 (3.2-51.8) weeks. Overall, 74 (17%) and 31 (7%) patients reported improvement in IIEF-EF score after PDE5i therapy and BDI scores, respectively. At Cox linear regression analysis, response to PDE5i was associated with improvements in BDI scores (HR: 5.47; 95%CI 2.52-11.89;  $p < 0.001$ ) after accounting for age, BMI and CCI. Figure 1 depicts CI curves of BDI score improvements among PDE5i responders and non-responders. At least 12 months of therapy was needed to achieve a 25% probability of BDI score improvement.

**Conclusions:** Current findings suggest that a 12-month period is needed to observe significant improvement in patients' psychological well-being.

**Conflicts of Interest:** None.