Objective: Many physical or medical therapeutic approaches, systemic or local, have been suggested for treatment of Peyronie's disease. These approaches claim a discrete percentage of success in terms of clinical stabilization or improvement. The aim of our work was to evaluate the "natural history" of this disease. Method: 110 patients affected by Peyronie's disease have been observed for at least five years. At the first visit all patients maintained sexual activity not requiring surgical approach. No medical or physical treatments have been performed on these patients. All patients underwent twelve months follow up for at least 5 years evaluating the natural progression of the disease by means of ultrasound and clinical examination. We made statistical analysis (Odds ratio, P for trend) to check if there is association between clinical worsening requiring surgical treatment and: 1- age of patients, 2- diabetes, 3- presence of close relative pattern for diabetes and 4-Dupuytren contracture. Results: Regarding curvature, number and size of fibrous plaques, a consistent tendency to stabilization has been observed in the group of patients above 50 years of age. 68% of the patients belonging to the group under 50 years showed a progressive worsening of the disease requiring surgical therapy, while in the other group only 31.5% of the patients required surgery. The statistical analysis confirmed that PD worsening is more probable in the group under 50 years of age (OR=3.5, CI:2-8) and in the patients affected by diabetes (age adjusted OR=6, CI:2-19). Statistical analysis has not shown significant differences in the evolution of Peyronie's disease regarding the presence of close relative pattern for diabetes and Dupuytren contracture. Conclusion: The patients presented a discrete tendency to spontaneous stabilization. The patients who are diagnosed under the fifties have a greater probability that the disease will worsen, requiring a surgical approach. The data regarding the natural history of Peyronie's disease in not treated patients should induce caution in awarding efficacy to new pharmacological and physical treatments.

Keywords
Peyronie's disease, Natural history