

# Is testosterone deficiency a real problem of male IBD patients ?



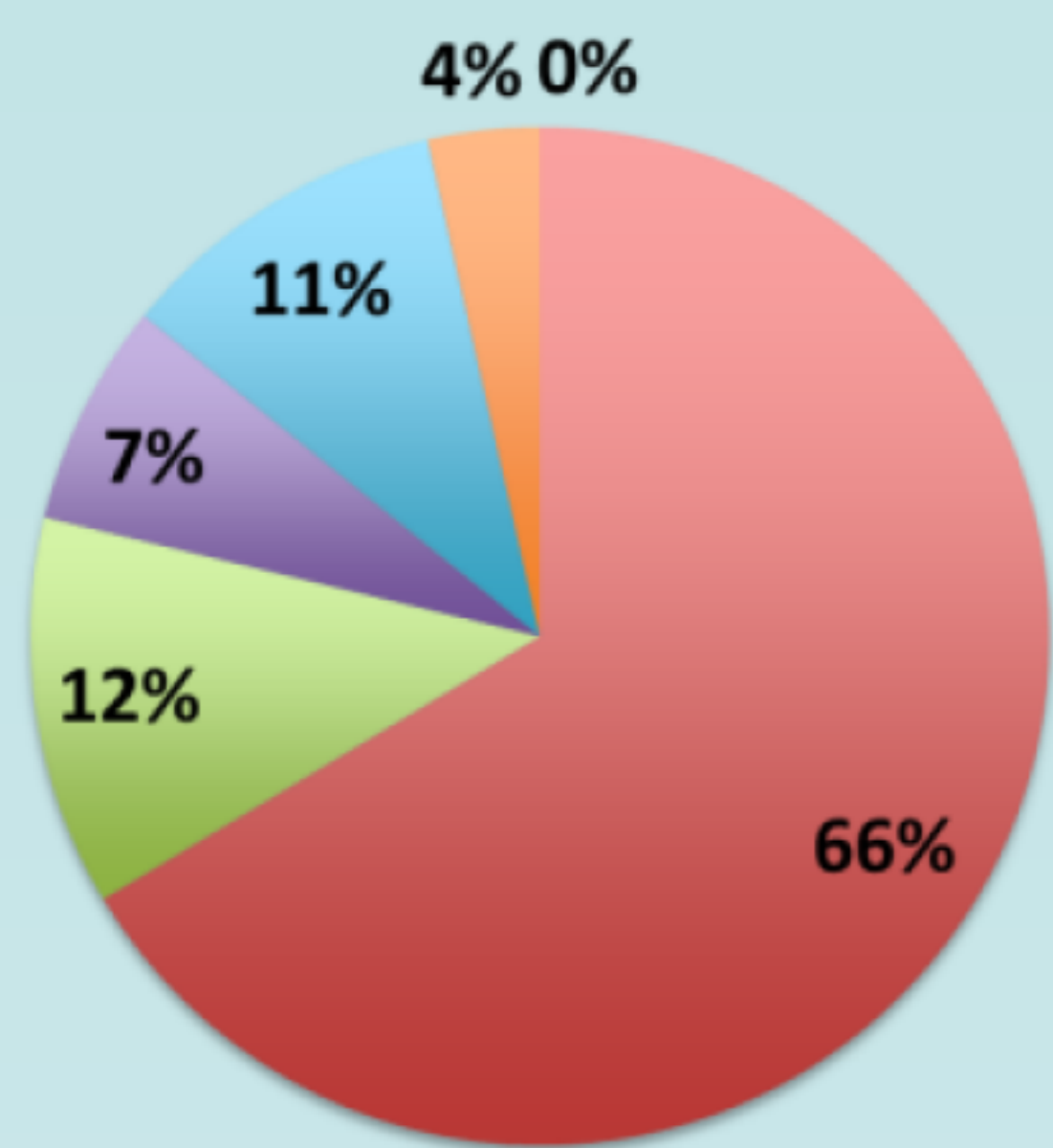
Kollerova Jana, Hlavaty Tibor, Krajcovicova Anna, Leskova Zuzana, Koller Tomas, Payer Juraj  
5th Dpt of Internal Medicine, Comenius University Faculty of Medicine and University Hospital, Bratislava

## Objectives:

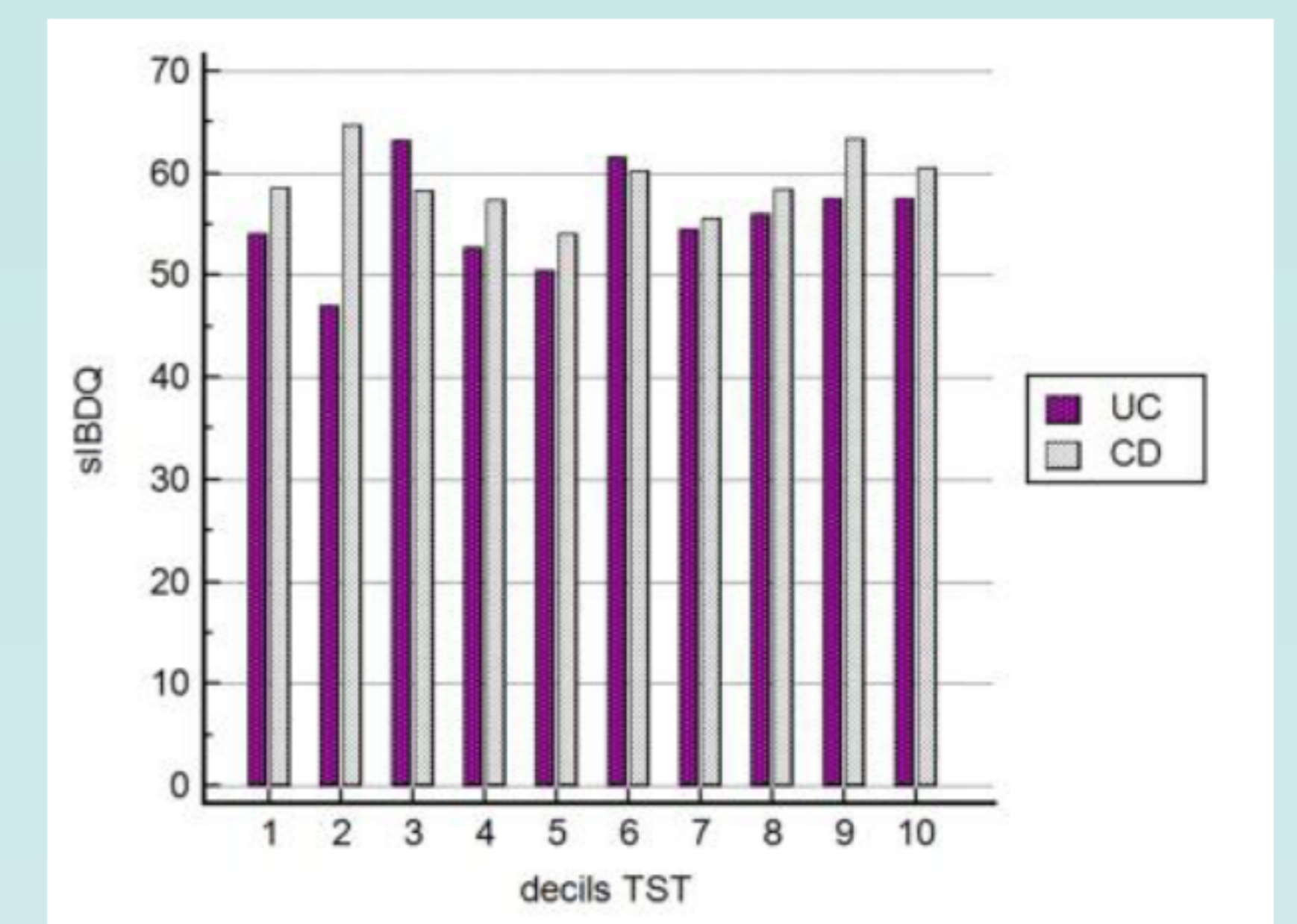
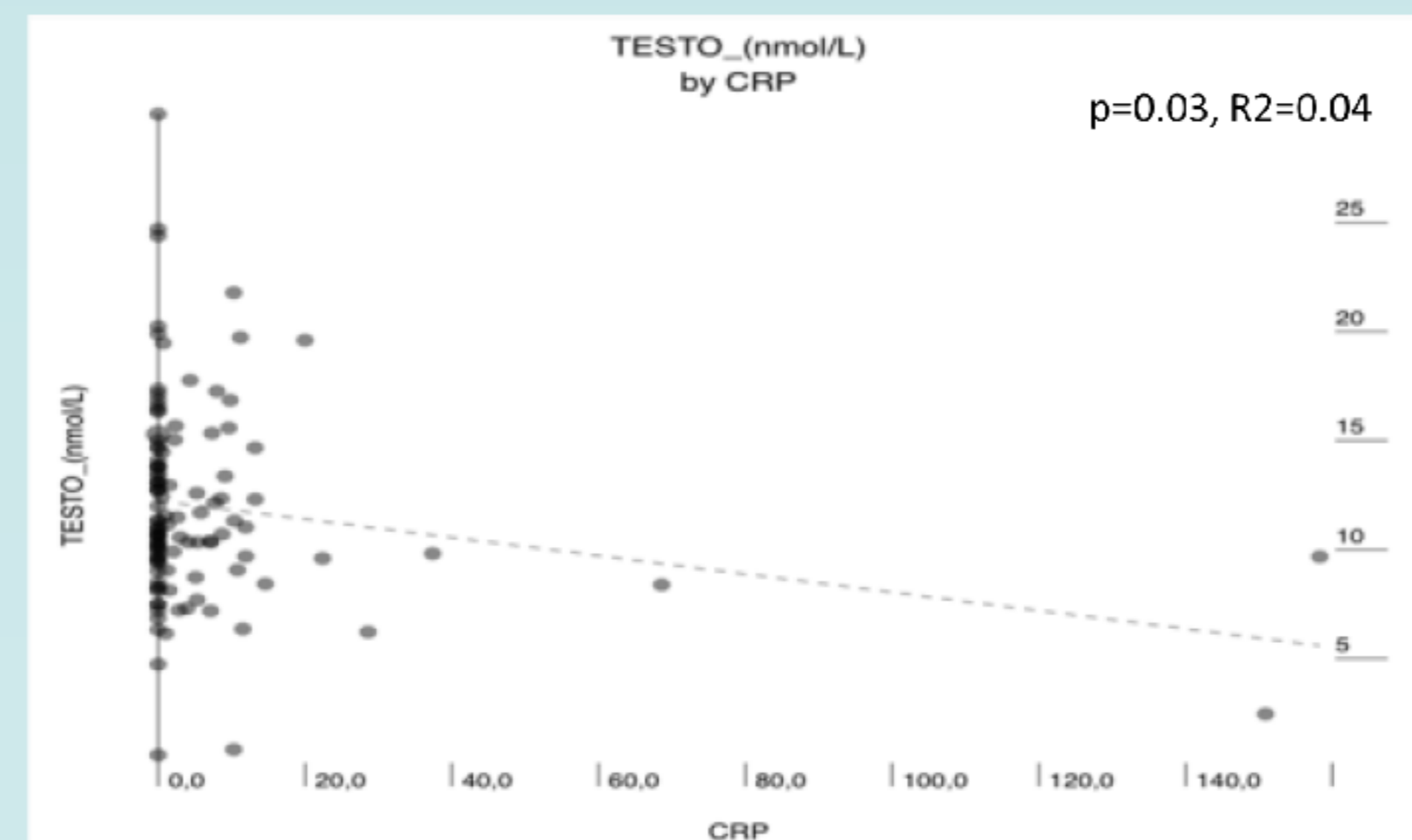
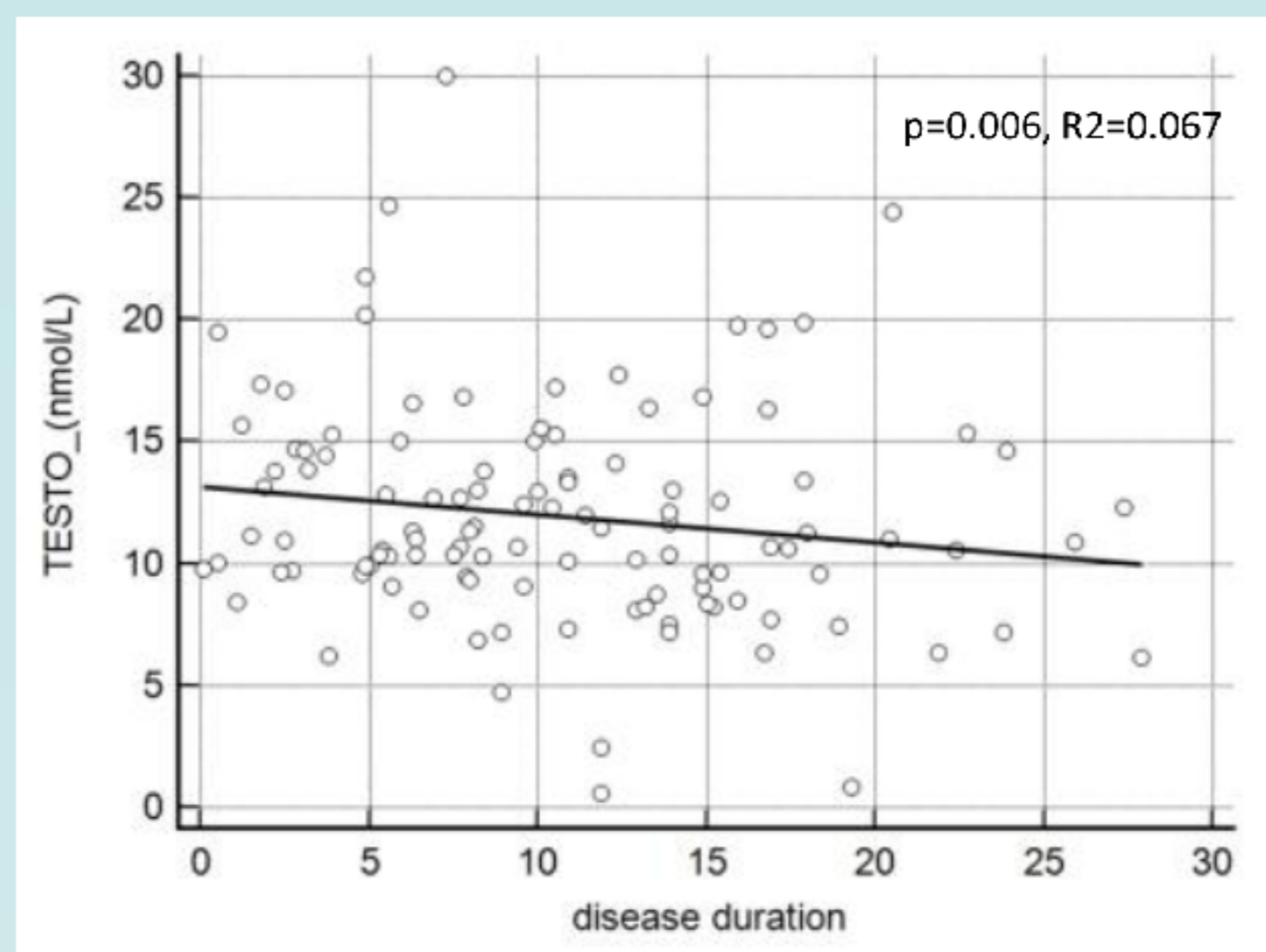
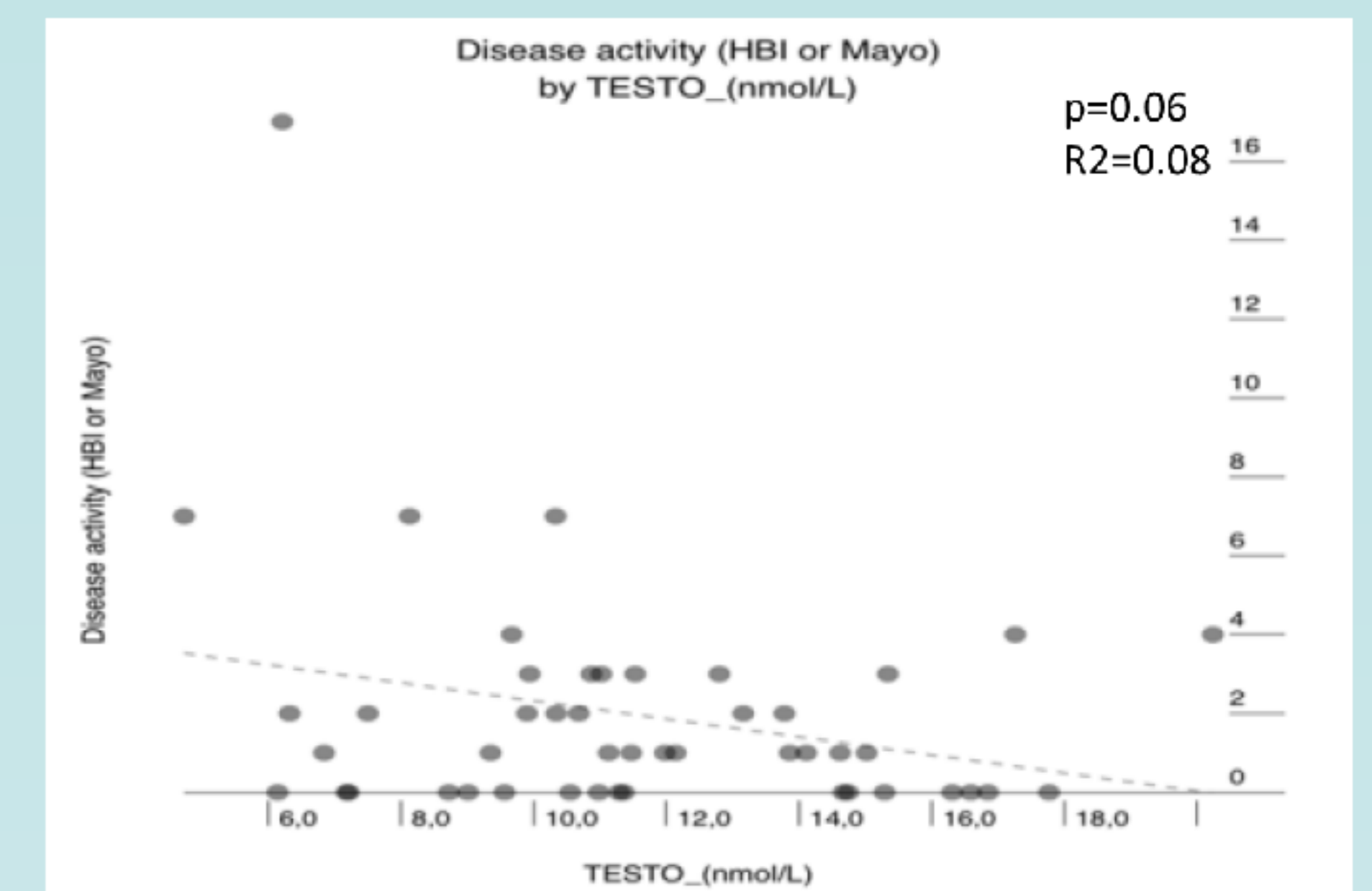
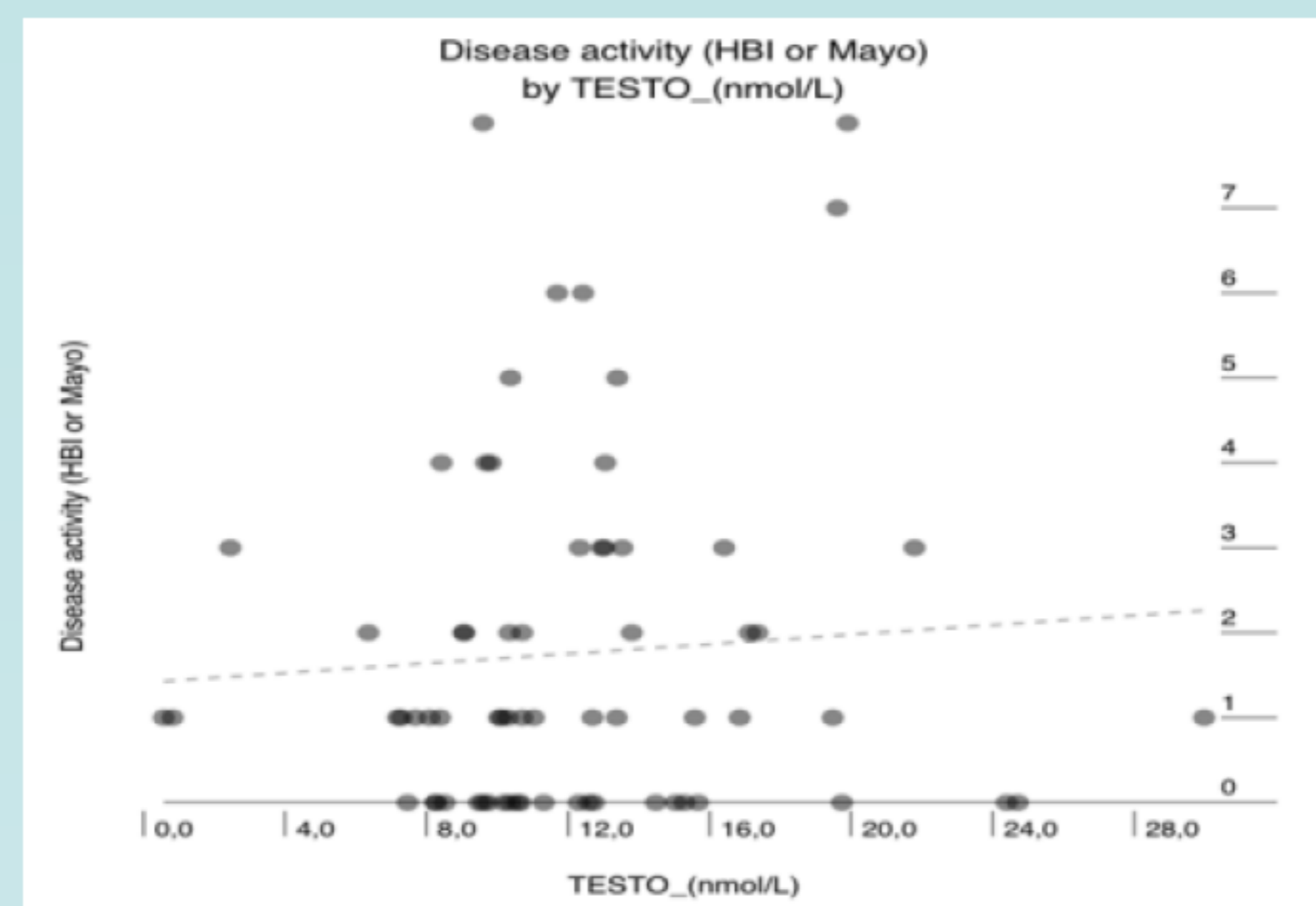
There have been many discussions about testosterone role in inflammation and autoimmunity. Low testosterone being the result of many diseases connected to the inflammation, to the autoimmunity, etc. On the other hand, lot of attention has been paid to the testosterone substitution therapy and the influence on the prognosis and progression of the disease. Inflammatory bowel disease (IBD) is a chronic autoimmune disease in younger age groups. The aim of our study was to evaluate testosterone concentration and its influence on disease activity and the quality of life.

## Methods:

In our cross-sectional study we measured total testosterone levels in males with IBD (Crohn's Disease, Ulcerative colitis). Age, BMI, main characteristics of IBD were also recorded as well as the disease activity (Harvey-Bradshaw Index for CD and Mayo score for UC) and the quality of life (SIBDQ).



■ TESTO\_(nmol/L)  
 ■ 10,0 ≤ TESTO\_(nmol/L) ≤ 30,0  
 ■ 9,0 ≤ TESTO\_(nmol/L) < 10,0  
 ■ 8,0 ≤ TESTO\_(nmol/L) < 9,0  
 ■ 6,0 ≤ TESTO\_(nmol/L) < 8,0  
 ■ 0,2 ≤ TESTO\_(nmol/L) < 6,0



## Results:

We included 113 patient with IBD (CD 66, UC 47) with median age of 34 (CD) and 41 (UC) years. Disease was active in 10.6 % of CD and 14.9% UC patients. Median duration of disease was 10,05 and 8,9 years respectively. The median testosterone concentration was 11 nmol/l for both groups. The level was less than 10 nmol/l in 34% and lower than 6 nmol/l in 4% of patients. We found a slight negative correlation of testosterone with disease activity in UC (R=0.28, p=0.06) and slight negative correlation to CRP in all IBD patients (R=0.2, p=0,03). There was also negative correlation between IBD duration and testosterone (R=0.18, p= 0,058). The quality of life did not correlate with TST levels.

## Conclusions:

Testosterone deficiency is quite common among male IBD patients. It seems to be connected to the disease activity, inflammation and the duration of disease. Very low concentration of testosterone was rarely found, but borderline levels or slight decrease was recognized in about 1/3 of patients. The quality of life seemed not to be affected, while most cases were in the clinical remission.

## References:

Kollerova J, Koller T, Hlavaty T, Payer J. [Hormonal changes in inflammatory bowel disease]. *Vnitr Lek.* 2015;61 Suppl 5:35-39  
 Tigas S, Tsatsoulis A. Endocrine and metabolic manifestations in inflammatory bowel disease. *Ann Gastroenterol.* 2012;25(1):37-44  
 Nasser M, Haider A, Saad F, et al. Testosterone therapy in men with Crohn's disease improves the clinical course of the disease: data from long-term observational registry study. *Horm Mol Biol Clin Investig.* 2015