The Turkish Journal of Occupational / Environmental Medicine and Safety

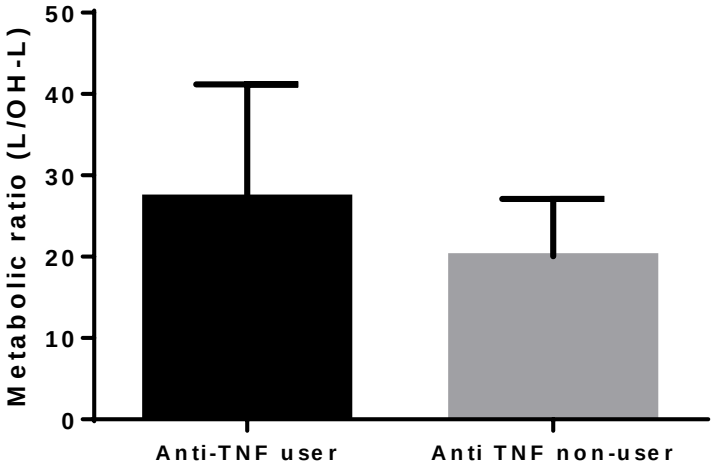
Vol:2, No:1 (1), 2017 Web: http://www.turjoem.com ISSN : 2149-4711

P108. EFFECT OF THE ANTI-TNF DRUGS ON CYTOCHROME P450 2C19 ACTIVITY

Mustafa Tugrul GOKTAS, Erdem K. ÖZER, Halil KARA,
Ilknur ALBAYRAK GEZER, Umit YASAR

Yildirim Beyazit University, Faculty of Medicine, Department of Pharmacology, Ankara, Turkey
Selçuk University, Faculty of Medicine, Department of Pharmacology, Konya, Turkey
Selçuk University, Faculty of Medicine, Department of Physical Medicine and Rehabilitation, Konya, Turkey
Hacettepe University, Faculty of Medicine, Department of Pharmacology, Ankara, Turkey

Ankylosing spondylitis (AS) is an autoimmune disease. Proinflammatory cytokines, such as TNF-α, IL-6, IL-17 and IL-23 have been shown to increase in patients with ankylosing spondylitis. Tumor necrosis factor-alpha (TNFα) blockers, such as etanercept, infliximab, golimumab and adalimumab are an alternative treatment in the AS patients. We previously showed that CYP2C19 activity was lower in AS patients compared to that of the healthy volunteers. The purpose of this study was to evaluate the effect of TNF antagonists (etanercept, infliximab, golimumab and adalimumab) on the CYP2C19 enzyme activity.
Eleven AS patients using TNFα blockers and 21 AS patients not treated with TNF-α blockers were included in the study. CYP2C19 enzyme activity was determined by lansoprazole metabolic ratio (lansoprazole/5-hydroxy lansoprazole) using high pressure liquid chromatography. Difference in the metabolic ratios of lansoprazole was compared with Mann–Whitney U test.
The mean values of lansoprazole metabolic ratio were 27.2 and 20.0 in Anti-TNF user and non-user AS patient groups (p=0.28, median and 95% CI: 25.0 [15.0-39.5] and 13.3 [13.4-26.6], respectively).



CYP2C19 enzyme activity was similar in Anti-TNF user and non-user. Anti-TNF drugs do not seem to interact with CYP2C19 substrates at the level of drug metabolism.

* dr_tugrul084@hotmail.com