Abstract
H1-receptor inhibiting drugs, namely loratadine and cetirizine, were frequently used in
treatment of chronic urticaria. Urticarial weal and flare reactions, a neurogenic reflex
due to
neuropeptides, were reported to be more effectively inhibited by cetirizine than
loratadine.
The aim of this study was to determine and compare the effects of systemic loratadine
and
cetirizine treatments on serum levels of selected neuropeptides in chronic urticaria.
Treatment groups of either systemic loratadine or cetirizine (10 mg/d), consisting of 16
and
22 patients, respectively, were included. Serum levels of stem cell factor (SCF),
neuropetide Y (NPY), calcitonin gene-related peptide (CGRP), nerve growth factor
(NGF),
vasoactive intestinal peptide (VIP), and substance P (SP) were detected before and
after
one week of treatment with antihistamines. Serum NPY and VIP levels were
significantly
decreased when compared before and after treatment with antihistamines (P < 0.001
and
P < 0.01, respectively). SCF and NGF values were also decreased after antihistamine
treatment (P < 0.05). Post-treatment levels of CGRP were significantly higher
compared
with pretreatment values, while no significant difference was detected between pre and
post treatment levels of SP. Cetirizine was significantly more effective than loratadine
on
lowering serum levels of SCF among the other neuropeptides. Systemic loratadine and
cetirizine treatments in patients with chronic urticaria precisely caused variations in
serum
levels of neuropeptides. The predominant effect of cetirizine compared to loratadine on
reducing serum SCF levels might be explained with anti-inflammatory properties of
cetirizine.