

# ABSTRACT BOOK

## NAFLD SUMMIT 2018

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**Scientific Organising Committee**

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# ePOSTER ABSTRACT PRESENTATIONS



## P02-13 The role of endothelial lipase in the diagnosis of cardiovascular risk in patients with non-alcoholic fatty liver disease in hypertension and insulin resistance subjects

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**Background and aims:** Non-alcoholic fatty liver disease (NAFLD) is now recognized as the most common disease in hepatology, and is also often accompanied by hypertension. Insulin resistance (IR) and endothelial dysfunction, in which metabolism endothelial lipase (EL) plays a leading role, are links in a chain and play an important role in the development of cardiovascular risk (CVR). Therefore, our aim was to determine the blood levels of EL for the early detection of CVR in patients with NAFLD in hypertension and IR subjects.

**Method:** 20 patients with NAFLD and hypertension stage 1 and 2 with and without diabetes mellitus (DM) were followed-up in groups 1 and 2. Groups 3 and 4 consisted of 24 patients with NASH and hypertension stage 1 and 2 with and without DM. Control group 5 consisted of 20 healthy individuals. Patients were selected according to age range and gender equal. The average age was [53 ± 7.5]. The severity of steatosis was determined by the NAFLD index liver fat score.

**Results:** Blood glucose levels were [7, 35 ± 1, 97] and [6, 39 ± 1, 07] mmol/l in group 2 and 4 respectively and had normal values in groups 1 and 3. Blood insulin level in group 1 was [18, 64 ± 9, 75] µm/ml, group 2-[30, 37 ± 11, 58] µm/ml, group 3-[32, 82 ± 20, 51] µm/ml, group 4-[34, 18 ± 19, 68] µm/ml. HOMA-IR were [4, 338 ± 2, 337], [9, 691 ± 5, 143], [7, 918 ± 5, 652] and [9, 211 ± 4, 577] in groups 1, 2, 3 and 4 respectively. HbA1C levels were [7, 947 ± 1, 555] and [7, 893 ± 0, 41] in group 2 and 4 respectively and [5, 336 ± 0, 581] and [5, 235 ± 0, 438] in groups 1 and 3. The blood level of EL is the lowest in the control group 5-[8, 23 ± 2, 47] ng/ml and a progressive significantly increased in group 1-[11, 299 ± 2, 925] ng/ml, group 2-[11, 714 ± 3, 22] ng/ml and group 3-[11, 84 ± 3, 801] ng/ml. Also significantly ( $p < 0, 05$ ) higher level of EL in group 4 [15, 51 ± 3, 09] ng/ml compared with groups 1, 2, 3 and 5. Spearman correlation analysis showed a significant positive association between the HbA1C and EL levels ( $r = 0, 386$ ;  $p < 0, 05$ ).

**Conclusion:** Increased levels of EL is inherent in all patients with NAFLD and hypertension. However, in patients with NASH and hypertension formed an additional association between the level of EL and HbA1C, which allows to consider EL as an additional predictor of CVR.