

Fibrinogen Molecule Variations in Lichen Planus Patients' Blood Serum

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Introduction

Lichen planus (LP) is a habitual seditious mucocutaneous complaint that belongs to the group of papulosquamous skin conditions together with psoriasis and pityriasis rubra pilaris among others (1). In addition to skin and mucous membranes, hair and nails might be affected (2). A distinctive point of this complaint is the presence of extremely pruritic flat polygonal violaceous pustules with characteristic Wickham striae. The rash is generally located on the flexor shells on the wrists, pins and holy area, but can also be circulated and involve the whole body (3). LP has a substantial negative impact on the quality of life of LP cases. The cases with genital, unguial and cutaneous LP are most oppressively affected, and LP cases have lower tone- regard (5). Jalenques et al. have shown that the signs of depression and anxiety are largely current in LP cases (27 and 28, independently) (6).

External factors (e.g., stress, trauma, infections) and genetics play an important part in the development and continuity of LP. There's a inheritable predilection, especially in cases with specific HLA haplotypes like HLA- Bw57, HLA- B27 and HLA- DR(). The pathophysiology of the complaint involves the migration of CD8 T- lymphocytes to the dermoepidermal junction and the induction of apoptosis in rudimentary keratinocytes. The cytokines that take part in the development of the complaint are interferon γ (IFN- γ), excretion necrosis factor α (TNF- α), interleukin 6 (IL- 6) and IL- 8. also, an increase in original angiogenesis has been set up().

The most common comorbidities of LP are hepatitis C contagion infection (HCV) and thyroid complaint (12). lately, metabolic pattern (MS), type 2 diabetes (T2D) and dyslipidemia have also been reported to be associated with LP(). also, LP cases have increased threat for cardiovascular conditions.

Description

Significant association between lichen planus (LP) and metabolic pattern (MS) has lately been established, especially in the severe form of LP (29). MS, as well as one of its factors — dyslipidemia — have both been preliminarily shown to be comorbidities of LP, and vice versa, habitual seditious skin conditions increase the threat for MS and dyslipidemia. Dyslipidemias are a group of metabolic dislocations characterized by colorful diversions in lipid situations (e.g., increased LDL- C, cholesterol and TG situations and dropped HDL- C situations)(). In the present study, we set up increased situations of cholesterol (C), cholesteryl esters (CE), free cholesterol (FC), total lipids (L) and phospholipids (PL) in L- LDL, LDL and IDL patches in the blood sera of LP cases. In our study group, the frequency of preliminarily laboratory- verified dyslipidemia passed less constantly (Table S1) than we'd have anticipated

grounded on the results of analysing the data and preliminarily published studies, which means LP cases should routinely be screened for dyslipidemia.

The classical structure of lipoproteins is well- known. Lipoproteins are divided into sorts grounded on the viscosity and composition. All lipoproteins as patches correspond substantially of apoproteins, TG- s, phospholipids, CE- s and FC- s. The size and viscosity of lipoprotein sorts depend on the quantities of abovementioned factors. The flyspeck sorts can be divided into several subfractions (e.g., large, small) substantially grounded on different rates, but also different quantities of preliminarily mentioned factors. The central apoprotein in VLDL and LDL is ApoB- 100, and ApoA in HDL (33). Apolipoproteins serve as ligands for lipoprotein receptors and cofactors for enzymes in lipid metabolism; they maintain the structure of the lipoprotein patches and guide the conformation of lipoproteins, but they also have more specific functions (e.g., ApoA I and endogenous ApoE help inflammation and oxidative stress) (34).

There live data regarding the changes in lipid and lipoprotein situations in the blood of the cases with LP, but the specific differences in the structure of lipoproteins weren't known. To our knowledge, we demonstrated for the first time that there live differences in the composition of lipoproteins insulated from the blood sera of LP cases. It has preliminarily been set up that the cases with LP have increased attention of total cholesterol (TC), LDL- C and TG and dropped situations of HDL- C. In addition, LP cases have also advanced TC/ HDL- C and LDL- C/ HDL- C rates, concomitantly an increase in C- reactive protein (CRP) as well as malondialdehyde situations and drop in catalase exertion were detected, which refocused to the increase in inflammation processes and presence of oxidative stress (15). There was also a significant drop in HDL- C (p = 0.003) and increase in Castell's atherogenic indicator (total cholesterol/ HDL cholesterol; p = 0.005) in OLP cases

Gardner et al. have characterized the changes in composition in HDL in cases with T2D and coronary heart complaint (CHD) and the changes in its function (42). In T2D cases, they set up an increase in TG-rich patches and a drop in large and veritably large patches. In both T2D cases and CHD cases, the attention in lipid species were altered when compared to the healthy controls; in T2D, the situations of 71 lipid species were dropped and 14 were increased compared to the controls, and in CHD cases, the attention of 5 lipid species were dropped and 4 increased. Functionally, HDL in T2D cases was described as having lower anti-apoptotic exertion against mortal aortic endothelial cells (42). Although the changes in the composition of HDL weren't statistically significant in our study, the abovementioned findings indicate that changes in the composition of lipoprotein patches lead to differences in their function.

In conclusion, we set up that the composition of lipoproteins was altered in the blood serum of cases with LP. The composition of lipoproteins has been shown to alter their function, and we propose that the detected changes may increase the threat of LP cases for specific comorbidities like dyslipidemia, MS and T2D, and vice versa. As the development and hepatic uptake of the altered/ modified LDL and IDL patches is disturbed, performing increased cardiovascular threat can be considered. farther studies to clarify the relationship between the composition and function of lipoproteins are demanded in order to unravel their part in the development of LP and its comorbidities. still, the results of the present study support the need for webbing for dyslipidemia in cases with LP [1-5].

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Conclusion

Lipoproteins are physiologically heterogeneous, and their structure changes in disease. Changes in the structure of LDL, L-LDL, and IDL were statistically significant between LP patients and HC in our study. The composition of LDL particles influences the progression of atherosclerotic cardiovascular disease. More sphingolipids and less phosphatidylcholines in LDL particles increase aggregation, which is associated with future cardiovascular death, according to Ruuth et al. We hypothesise that the changes identified in this study work together to affect the function of lipoproteins, increasing the risk of cardiovascular events.

Acknowledgement

None.

Conflict of Interest

None.

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