

SUMMARY AND CONCLUSION

Psoriasis is a chronic inflammatory skin disease. It is characterized by cycles of remissions and exacerbations. It occurs in at least 0.6-4.8% of the general population. Genetic and immunologic mechanisms have been proposed in the etiology of psoriasis. It is also believed to be associated with other cellular, biochemical and metabolic defects.

There have been increasing reports that psoriasis may be associated with a higher rate of co-morbidities, such as psychiatric diseases, obesity, cancer, autoimmune diseases, cardiovascular and metabolic diseases. It is unclear if these associations are due to the pathophysiology of psoriasis, treatment of psoriasis or psoriasis-associated behaviors (e.g., smoking and alcohol). These associations are important as they are part of the burden of psoriasis and can be potentially important in managing and counseling patients, as well as, interpreting safety data of systemic medications.

High prevalence of diabetes in patients with psoriasis has long been recognized and this association is possibly related to the presence of insulin resistance in psoriatic patients. Insulin resistance (IR) is a common metabolic abnormality that occurs in various medical disorders e.g. type II diabetes, hypertension, dyslipidemia, obesity and atherosclerotic cardiovascular disease. These disorders have collectively been referred to as the insulin resistance syndrome. IR affects 10–25% of the general population. DM is preceded by a state of impaired glucose tolerance (IGT) which is an intermediate metabolic state between normal glucose homeostasis and diabetes. Impaired glucose tolerance individuals are resistant to the action of insulin.

The role of chronic inflammation causing metabolic disorders is increasingly recognized. It is hypothesized that proinflammatory cytokines contribute to insulin resistance, the development of type II diabetes and other metabolic disorders as obesity, dyslipidemia and CVD. Among all cytokines involved, TNF- α , IL-6 and CRP are shown to play a central role. However, the potential mechanisms that putatively contribute to increased risk of metabolic disorders in psoriasis are largely unknown. It may be related to psoriasis itself, a consequence of obesity or the medications used to treat psoriasis. Shared genetic background may also contribute to the susceptibility of both psoriasis and some of these metabolic disorders.

Cardiovascular risk factors associated with psoriasis are confirmed by many clinical studies. Three elements contribute to these cardiovascular risk factors in psoriasis patients; the most important one is the chronic inflammation in psoriasis; that deteriorates the complete cardiovascular risk profile. Secondly, systemic therapies of which its effect depends on the sum of anti-inflammatory effects and atherogenic side effects. Finally, life style factors like smoking and obesity, that add to the cardiovascular risk profile directly as a classic cardiovascular risk factor, and also indirectly by increasing the psoriasis activity.

Many psychological disturbances are associated with psoriasis e.g. depression, anxiety, lack of self confidence and obsessive behavior. Stress has been shown to play a role in the onset of psoriasis.

The study included 30 psoriatic patients as well as 30 healthy controls. Measurement of serum blood glucose levels (both fasting and 2 hours postprandial) was done to assess the relation between psoriasis, elevated blood glucose level. Serum triglycerides, total cholesterol and high density lipoprotein

cholesterol (HDL-c) were estimated to assess the relation between psoriasis and dyslipidemia. Echocardiography was carried out to assess cardiovascular system function. IIEF -5 and FSFI were used to assess the relation between psoriasis and sexual function.

Our results showed significant increased rates of elevated blood glucose level in psoriatic patients in comparison to control group with statistically significant positive correlation between elevated blood glucose level with both duration and severity of the disease (measured by PASI score). Therefore, psoriatic patients carry more diabetogenic risk. Also, results showed an association between psoriasis and cardiovascular risk factors as obesity, smoking, alcohol intake and dyslipidemia. Patients with psoriasis have distinct sexual dysfunction compared with healthy controls with statistically significant positive correlation between sexual dysfunction and the disease severity. Smoking and alcohol consumption were associated with a higher rate of co-morbidities in psoriatic patients.

In conclusion, psoriatic patients especially smokers and alcoholics have an increased prevalence of the core components of the metabolic syndrome including; obesity, dyslipidemia, diabetes mellitus and cardiovascular disease (CVD). Psoriatic patients must be considered as a group at risk for cardiovascular disease, since psoriasis seems to be associated with increased risk of dyslipidemia and obesity. Psoriasis can also affect sexual function in both males and females. Co-morbid psychological factors, such as depression and anxiety, may be important determinants of decreased sexual functioning in psoriatic patients so; sexual dysfunction should be investigated and treated in psoriatic patients to improve patients' quality of life.