### HOSPITAL BASED STUDY ON DYSLIPIDEMIA AND PSORIASIS

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**ABSTRACT:** Psoriasis is a chronic papulosquamous disorder associated with dyslipidemia. Dyslipidemia is a component of metabolic syndrome.

**KEYWORDS:** Psoriasis, Triglycerides, Arthropathy.

**INTRODUCTION: AIM OF THE STUDY:** To study patterns of psoriasis and the association between psoriasis and dyslipidemia.

**MATERIAL AND METHODS:** 200 patients with psoriasis who attended the Psoriasis clinic in Dermatology Department of Sri Ramachandra Medical College hospital between 2013-2014.

#### **OBSERVATIONS & RESULTS:**

The study included 200 patients Psoriasis patients with mean age of 46.46 yrs The mean BMI was 23.40. The mean Cholesterol level was 191.10. The mean Low density Lipoprotein (LDL) level was 116.16 The mean HDL Level was 43.49mg/dl Mean TGL level was 142.69mg/dl. The average age of onset of psoriasis was 42.4 yrs. The average disease duration was 55 months. The sex distribution was 45.4% males & 54.6% females.. Majority of the patients had Psoriasis Vulgaris-58.5% followed by palmoplantar psoriasis with 23.7%. 64.3% of psoriasis patients had low HDL levels < 40 mg/dl in males & < 50 mg/dl in females. 37.7% of psoriasis patients with TGL levels > 150 mg/dl whereas 62.3% had TGL below cutoff level.

9.2% of patients had history of smoking.

14% of patients had history of Alcohol consumption.

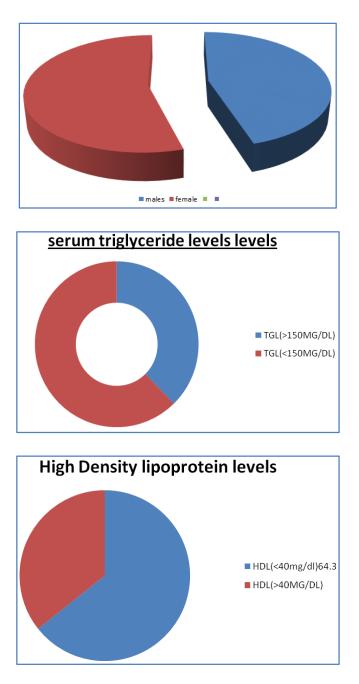
65% of patients had physically active lifestyle, 35% had a sedentary lifestyle.

5% of psoriasis patients had arthropathy, ranging from knee involvement to wrist and finger involvement.

Nail involvement is seen in 80% of screened psoriasis patients had nail involvement in the form of coarse irregular pitting, longitudinal ridging, splitting, subungual hyperkeratosis & onycholysis.

Scalp involvement was seen in 45 % of the 200 patients.

#### **PSORIASIS-INCIDENCE:**



**DISCUSSION:** Psoriasis is a chronic papulosquamous disorder with significant impact on the patients quality of life.<sup>[1,2]</sup> Psoriasis has been increasingly reported to be associated with dyslipidemia with significant risk for development of atherosclerosis, coronary artery disease, angina and myocardial infarction.<sup>[3,4]</sup>Assessment of psoriasis involvement and grading may help in gauging the presence or development of metabolic syndrome (risk – 14-40%)at a later date.<sup>[5,6]</sup>Dyslipidemia may be a correctable co morbidity with institution of proper regimen of physical activity, diet and anti-cholesterol therapy.<sup>[7,8]</sup>

Dyslipidemia is significant aspect with moderate to severe psoriasis and poor control with metabolic syndrome may even worsen the psoriasis leading to instability and progression to severe forms like pustular psoriasis or erythroderma. Contrary to the reports of increased psoriasis rates in males in the present study we found higher rate of involvement among female patients, as observed by Ilkin et al who reported increased trend of metabolic syndrome in women.<sup>[9]</sup> Risk factor of metabolic syndrome is more pronounced in female gender.<sup>[10,11]</sup> Dyslipidemia and metabolic syndrome manifested at a later age in psoriatic patients as reported by Gisondi et AL.. Decreased HDL Cholesterol was seen in this study. There was no correlation between the type of psoriasis and dyslipidemia.<sup>[12]</sup>

Hence the need for monitoring and more longer term studies in our population to assess the play of these factors is required.

#### **REFERENCES:**

- 1. Rahat S Afzar. Psoriasis andMetabolic disease: Epidemiology and pathophysiology. Curr Opin Rheumatol .2008 July; 20(4): 416-22.
- 2. Neiman AL, Shin DB, Wang X et al. Prevalence of cardiovascular risk factors in patients with psoriasis. J Am Acad Dermatol 2006; 55:829-35.
- 3. Parisi R, Symmons DP, Griffiths CE, Ashcroft DM Global epidemiology of psoriasis: a systematic review of incidence and prevalence. J Invest Dermatol. 2013 Feb; 133(2): 377-85.
- 4. Dogra S, Yadav S. Psoriasis in India prevalence and pattern Ind J Dermatol Venereol Leprol .2010 Nov- Dec; 76(6): 595-601.
- 5. Aurangbadkar S J .Ind J Dermatol Venereol Leprol. 2013; 79:10-7.
- 6. Javidi Z, Meibodi NT, Nahidi Y.Serum lipid abnormalities and psoriasis Ind J Dermatol Venereol Leprol 2007; 52:89-92.
- 7. Piskin S, Gurkok F, Ekuklu G,Senol M. Serum lipid levels in psoriasis.Yonsei Med J.2003 ;44: 24-6.
- 8. Scarpa R et al .Psoriatic disease: Concepts and implications. J Eur Acad Dermatol Venereol. 2010 Jun; 24 (6): 627-630.
- 9. Boehnecke WH, et al .The Psoriatic March: A Concept of how severe psoriasis may drive cardiovascular comorbidity. Exp Dermatol 2011; 20: 303-7.
- 10. Wakkee M, et al. Unfavourable cardiovascular risk profiles in untreated and treated psoriasis patients. Atherosclerosis 2007; 190:1-9.
- 11. Cohen et al. Psoriasis and metabolic syndrome. Acta Derm Venereol 2007; 87:506-09.
- 12. Gisondi P, Tessari G, Contiet A, et al. Prevalence of metabolic syndrome in patients with psoriasis: a hospital based case control study.Br J Dermatol 2007; 157:68-73.

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