



SERUM IGE AND PSORIASIS VULGARIS: A STUDY OF 50 PATIENTS

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ABSTRACT

Extract- Serum IGE was done in 50 cases of psoriasis vulgaris and 25 controls it was raised in 40% of cases and 10% of the controls which is inconsonance with a few studies that have been conducted in this field though no exact cause of elevation of IGE in psoriasis has been reached upon by any of them and us.

INTRODUCTION

A common, chronic disfiguring, proliferative and inflammatory skin disease in which both genetic and environmental factors play a part. The most characteristic lesions are present on extensor surfaces And scalp as scaly plaques are sharply demarcated. The incidence worldwide is 1.3-3% of the population. Age wise. It can occur at any age, usually around 28 years but a general study suggest two peaks, between 16 to 22 years and later one at 57-60 years^[1] A study from Uk^[2] also supports this. Males and females are equally affected. Whereas in Europe, first degree relations are quite common that is not so in India, very rarely one may encounter father and son or two brothers and sisters suffering from the disease; in fact the author feels it is skipping of two generations in India after 41 years experience in this discipline. It is related to HLA 28. Hormonal factors do play a part e.g. in 40% pregnancies, psoriasis is improved, in 40% unaltered and in 14% worsened, while in post partum period, it is more likely to deteriorate.^[3,4]

Other clinical variants are pustular psoriasis (PP) which is common but potentially life threatening.

Erythrodermic psoriasis (PE) is usually all over the body and involves less than 2% of the total psoriasis patients.

Psoriatic arthritis (psP) is characterized by pain, swelling and tenderness of the affected joints and later may lead to damage and disability of the joints.

MATERIAL AND METHODS

Serum IgE is not only raised in atopics and nasobroncheal allergy patients, but also in tumultuous skin disorder like psoriasis and mycosis fungoides etc. A total 50 patients (28 males and 22 females of Psoriasis vulgaris) between 22-55 years were enrolled. Patients with history of atopic dermatitis, allergic diseases,

parasitic infections or systemic diseases were included. 25 healthy controls with matched age and sex were enrolled. Patients on corticoids and immunostimulators too are not taken up.

DETECTION OF SERUM IGE

Serum IgE are measured by CHEMELUMNISENSE using commercially available kits twenty patients (40%) had elevated IgE and male-female ratio was 12 and 8 respectively and ranged between 600 IU TO 1400 IU/ml. Psoriasis is generally thought to be immune mediated skin disease and IgE plays an important role in Psoriasis vulgaris however, in this study, cytokines were not analysed.

MOLECULAR BIOLOGY

Psoriasis is a complex multifactorial disease influenced by genetic and immune mediated components; and considered to be mixed T-helper 1(Th1) and Th17 immune response. Th1 auto-immune disease with over expression of pro-inflammatory Cytokines from Th1 cells, increase in serum IgE has been reported in several cases of psoriasis.^[5]

Limited data is available regarding the altered Th1/Th2 balance in psoriasis. Many investigators have tried to explain the cause of elevated IgE, the marker of Th2 immunity in some patients of psoriasis, but basically psoriasis remains a Th1 immune response.

Elevation of serum IgE is characteristic in common allergies like atopic dermatitis, allergic asthma etc, but increased levels of IgE are not necessarily associated with allergic symptoms. The purpose of current study was to assessment of IgE Levels are increased in psoriasis could be explored by us or the future generation.

DISCUSSION

Changes that elevated serum IgA, IgG and ANA have been demonstrated in the past years.

Studies of serum IgE detection in Psoriasis vulgaris are limited. IgE is produced by B lymphocytes and the production is controlled by T lymphocytes. Elevation of IgE is usually acknowledged as typical of allergic response and is elevated in atopic conditions such as eczema, rhinitis and bronchial asthma but increased levels if IgE are not necessarily associated with allergy symptoms. Also, IgE level is increased in patients with SLE, alopecia areata and other autoimmune diseases. Yan et al^[5] demonstrated that 39% patients with psoriasis had elevated serum IgE (20%). Chen et al^[6] reported high serum IgE in 46% psoriasis vulgaris patients

That mean, our study of high serum IgE in psoriasis vulgaris is in consonant with other authors, wherein we had high IgE in 40% patients and 10% controls. Though we did IgE levels in psoriasis vulgaris patients only, still more levels are seen in PE patients; which we too observed but were not a part of this study. Our data is also in contrast to studies to two studies which showed no increase of IgE in psoriasis.^[8]

The mechanism of high IgE in psoriasis patients non the less, are still poorly understood. IgE is usually dominated by TH2 cytokines i.e IL13 and IL4. Mediate class switching towards IgE in atopic diseases.^[9,10]

However, the cytokines cannot be produced by keratinocytes and IL13 and IL4 were down regulated in psoriasis. So it is presumed there, maybe the other mechanism promoting high IgE in Psoriasis vulgaris.

Of late, a study showed that IgE production could directly be promoted by IL17 (28) or circulating TNF levels and IgE serum levels in Psoriasis.^[11]

To conclude, our data showed high levels of serum IgE in psoriasis vulgaris; but the exact role in pathogenesis is not clear and further studies are required in the same direction and also towards the treatment which is almost the same as 50 years ago. The newer drugs as Acitretin and apimilast are no miracle. Despite so much research in psoriasis pathogenesis to treatment, we are still where we were five decades ago.

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