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Research Article

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Self-Blood (Immunotherapy), A New Hope for Psoriasis

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Abstract

Psoriasis, a chronic non communicable, painful, disfiguring and disabling disease for which no cure and poses great negative impact on patient's quality of life and can affect any age or sex. In the wake of commonly prescribed immunosuppressive or biologicals, in the present study self-blood and betamethasone injection intramuscular administration as per suggested schedule achieved beginning of improvement in all the cases by 6th month of therapy and complete absence of manifestation in all by 42 months without any adversity or withdrawal effect, considered as neutralization of generated protein responsible for increased rate of skin cell death and increased keratinocytes.

Keywords: *Psoriasis; Communicable; Disabling; Immunosuppressive; Self-blood; Cell death, keratinocytes*

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Introduction

Psoriasis a non-contagious, non-infectious agonising auto immune disorder usually associated with immunological disorders [1-10], affects both sexes without any socio-economic variation and poses agonising encumbrance and progressively increasing in present scenario.

Its incidence varies worldwide i.e.- In European country USA has 1-3% of total population, 2-4% western world population and 7.5-8.5 million cases while in India 0.44-2.8% and affect > 10 million every year [11-13], rate of psoriasis incidence varies according to age, region, and ethinic & combination of environmental and genetic factor.

Commonly involved sites are knee, elbow, scalp, tarso, and palm, sole of feet but can appear and involve any part of the body and persons with inflammatory bowel disease are more prone Commonly offered therapeutics i.e. - modern molecule, Ayurveda, homeopath or any other, fails to ensure cure of the disease and only assure soothing effect and relieve dermal discomfort with recurrent flare up. [14-16]

Commonly used modern therapeutics are –

Synthetic retinoids, Immuno suppressor, Recombiant monoclonal antibody, Cholecalciferol orally
Topical use- = Allantoin, anthralin and Desonide

Aims and Objectives

Evaluation of immune boosting therapeutics i.e. Self-blood and betamethasone intramuscular to counter the antigen generated in the body and calm the antigen-antibody activity in patients of psoriasis and its sequel psoriatic arthritis

Material & Methods

Material

Patients of psoriasis attending at the OPD of RA. Hospital & Research Centre, Warisaliganj (Nawada) Bihar and Aarogyam Punarjeevan, Ram Bhawan, Ara Garden Road, Jagdeopath, Baily Road Patna 14 with following presentation were selected. Bleeding on pulling of dry white flake of skin, a confirmatory sign of Psoriasis termed as AUSPETZ sign [17]

Common presentation are [18-19]

- Plaques of red skin often covered with loose silvery scales
- Itching
- Pain
- Occasionally with cracks and bleed
- Plaques of scales or crust on the scalp
- May be associated with psoriatic arthritis (stiff, swollen and painful joint)
- Thickened, ridged and pitted nail
- Stiff and swollen joint

Types of lesion Characteristics

Pustular psoriasis: Red and scaly skin on the palms of the hands and/or feet
With tiny pustules
Guttate psoriasis: Often starts in childhood or young adulthood, small, red Spots, mainly on the torso and limbs. Triggers may be Respiratory infections,
Strep throat, tonsillitis, stress, injury to the skin, and
Use of anti-malarial and beta-blocker medications.
Inverse psoriasis: bright red, shiny lesions that appear in
Skin folds, such as the armpits, groin area, and under

The breasts

Erythrodermic psoriasis: Periodic, fiery redness of the skin and shedding of

Scales in sheets;

Duration of Study: April 2003-March 2005

Follow up Period: 2015-2018

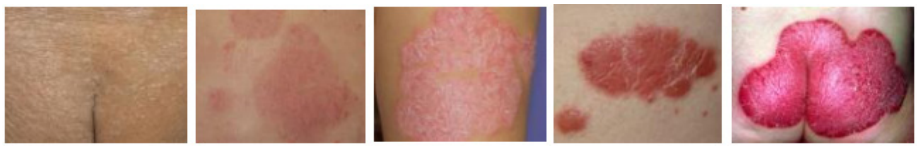
Methods

Selected patients were interrogated for the history of diseases, drugs taken and their response, examined clinically and investigated for typing the lesion, base line biological status to adjudge the clinical effect or adversity.

Selected patients were classified in to various grade of severity as per clinical presentation [19-20]

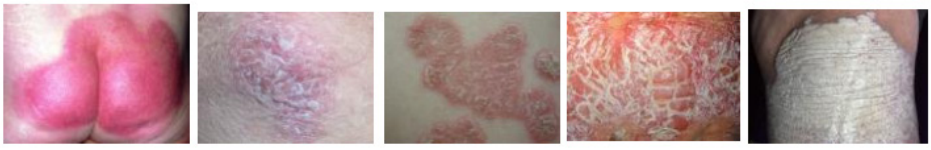
Intensity

Erythema: Absent Mild Moderate Severe Very severe



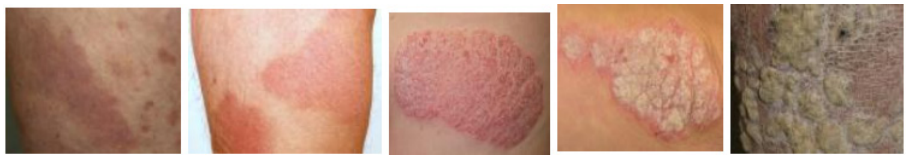
Score 0 1 2 3 4

Induration (thickness)



Score 0 1 2 3 4

Desquamation



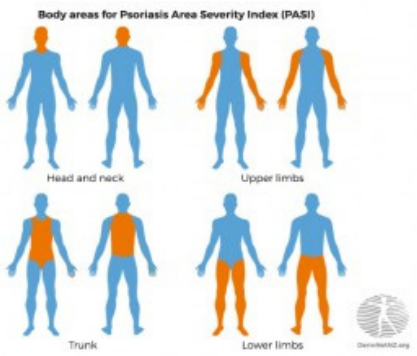
Score 0 1 2 3 4

Area

The percentage area affected by psoriasis is evaluated in the four regions of the body. In each region, the area is expressed as –

Area involved	Grade of severity
Nil	(0),
1-9%	(1),
10-29%	(2),
30-49%	(3),
50-69%	(4),
70-89%	(5)
90-100%	(6).

- Head and neck
- Upper limbs
- Trunk
- Lower limbs



Calculations for area

Each of the body area scores is multiplied by the area affected.

- B1 x (0 to 6) = C1
- B2 x (0 to 6) = C2
- B3 x (0 to 6) = C3
- B4 x (0 to 6) = C4

Thus total PASI score = C1 + C2 + C3 + C4.

Other assessments

The Cardiff Dermatology Life Quality Index is a simple 10-question validated questionnaire to assess the impact of a skin disease on the patient's life. The same team have devised a specific assessment for the quality of life in psoriasis, the Psoriasis Disability Index.

Based on these index patients were classified as-

Mild: Involved body surface area (BSA) < 10
Psoriasis Area severity index (PASI) < 10
Dermatology life quality index (DLQI) < 10
Moderate to
Severe: Involved body surface area (BSA) > 10
Psoriasis area severity index (PASI) > 10
Dermatology life quality index (DLQI) > 10

In addition this can be categorised as -

Grades of severity Characteristics
Mild: Few scaly patch with itch
Moderate: Wide spread scaly lesion and associated
Bleeding on pulling scales.
Severe Wide spread silvery patch or scales with
generalised itch, swelling and agonising
Pain in joints.

After complete interrogation and clinical grading as per severity each patients were advocated the esteemed immune booster- Self-blood 2 ml with Betamethasone 1 ml (in non-diabetic cases as per following schedule in patients as adjuvant in tapering dose schedule and other continuing drugs are withdrawn.

Schedule of therapy

Every 4th day, week, 10th day, 15th day, monthly, 2 month, 3 months and 6 months for 10 injections each on competition of therapy therapeutic outcome is assessed as per following index of assessment.

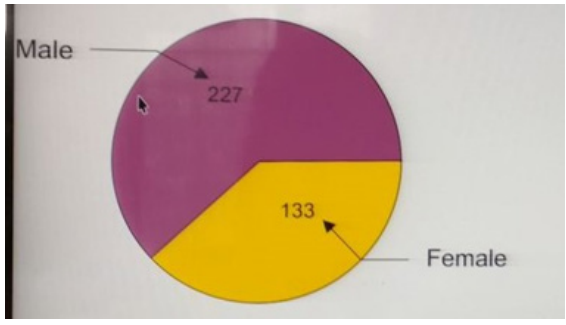
Clinical grades	Characteristics
Grade I	complete alleviation of clinical presentation without any residue, withdrawal or adjuvant or adversity
Grade II	Marked relief in clinical presentation but recurrence on treatment withdrawal
Grade III	No response of therapy except transient relief

Observation

Selected patients were of age group 20-60 years and majority 186 were of age group 50-60 yrs. (T-1), Out of all 264 were male and 155 were female (Pie diagram)

Age group	Number of patients		
(In yrs.)	Male	Female	Total
20-30	10	03	13
30-40	50	28	78
40-50	94	48	142
50-60	110	76	186
Total	264	155	419

Table 1: *Distribution of patients as per age and sex.*



Pie diagram showing male female composition

As per distribution of lesion 164 were having lesion on extremity while 56 were having wide spread lesion and 90 presented with psoriasis sequel (Table 2)

Area of distribution	Number of patients
Localised:	273
Face	039
Extremity	164
Abdomen	070
Wide spread	056
Sequel:	
Psoriatic arthritis	090

Table 2: *Distribution of patients as per distribution of lesion.*

252 patients were suffering from 5-10 yrs. though 11 cases were suffering since more than 20 yrs. (Table 3)

Duration of illness (In years)	Number of Patients		
	Male	Female	Total
< 5	15	10	25
5-10	152	100	252
10-15	40	17	57
15-20	50	24	74
> 20	07	04	11

Table 3: *Distribution of patients as per duration of illness.*

Out of all selected cases 50 cases have not taken any treatment while 57 cases have tried all sorts of medication (Table 4)

Medication consumed	Number of patients		
	Male	Female	Total
No treatment	51	39	90
Modern medication	70	68	138
Ayurvedic	96	24	120
Homeopath	40	24	64
All types	32	26	57

Table 4: *Distribution of patients as per therapeutic consumed.*

Out of all 383 cases were qualified and middle upper class people (Table 5)

Particulars	Number of patients		
	Male	Female	Total
Qualified and middle-upper class	237	146	383
Illiterate & down trodden	27	09	36

Table 5: *Distribution of patients as per social and educational status.*

Out of all 1.5% male and 4.5% female show altered hepatic function, 39.2% male and 24.6% female present with albuminuria, 37.1% male and 38.7% female are anaemic with Haemoglobin < 10gma%, 2.27% male and 4.5% female were hyperglycaemic (Table 6)

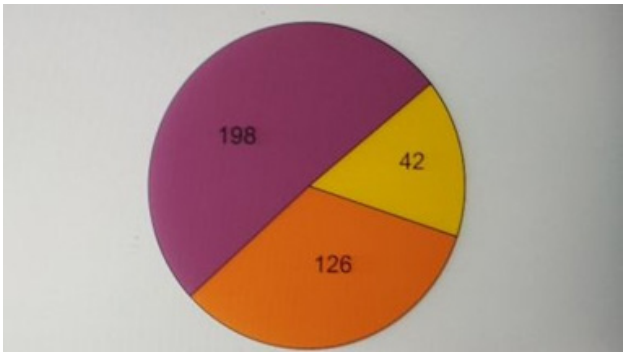
Basic Profile		Number of patients	Total
	Male	Female	
Hepatic Profile:			
SGOT:			
< 35	260	148	408
> 35	04	07	11
SGPT			
< 35	260	148	408
> 35	04	07	11
Renal profile:			
Blood urea:			
< 26	264	155	419
> 26	None	None	None
Serum creatinine			
< 1.5	264	155	419
> 1.5	none	none	none
Urine Albumin			
Present	104	65	169
Absent	160	90	250
Hematology:			
Hemoglobin (gm%)			
< 10gm%	98	60	158
> 10gm%	166	95	261
Absolute eosinophil:			
< 400/cc	264	155	419
> 400/cc	none	none	none
Blood Sugar			
Fasting			
< 100 mg%	258	148	406
> 100mg%	06	07	13

Table 6: *Shows basic bio status.*

Out of all 10 % (42) were of mild grade while 34.9% (146) were of grade III severity (Bar diagram) Majority 46.3% (194) cases have taken 4 months to begin improvement in agonizing presentation whereas 48 cases shown improvement on 3 months completion of therapeutic regime and 68 case taken 6 months' time (Bar diagram)

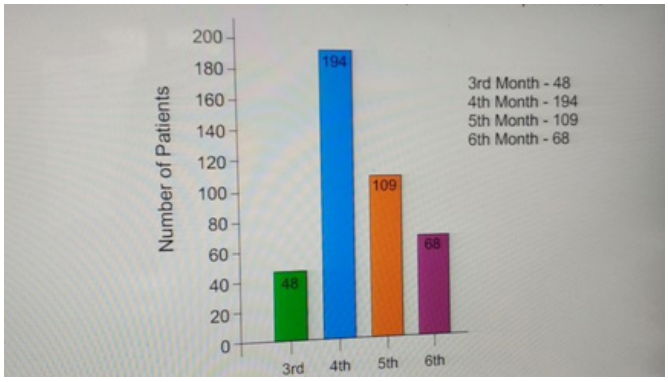
Complete cessation of agonizing presentation achieved after 6 months therapy and by 3 yrs majority patients 94.5% (396) had complete relief of presenting features and agonising itch (Graph showing achievement of recovery)

Pie diagram showing distribution of patients as per degree of severity:

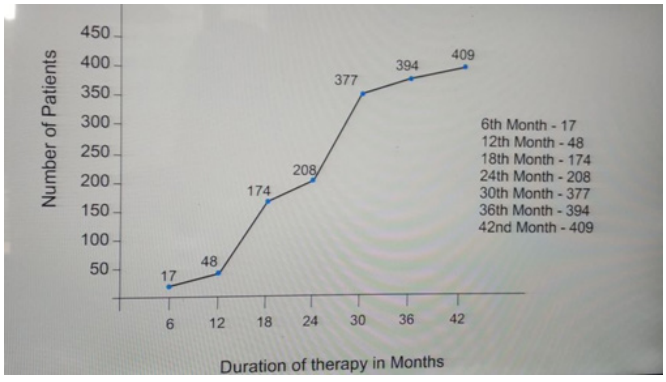


mild, moderate, severe

Bar diagram showing time lapse for onset of improvement



Graph showing therapeutic response



Out of all 94% (396) patient had grade I clinical response while rest grade II without any relapse or withdrawal reflex or any adversity related to therapeutic regime nor any disease related sequel during the vigil follow up.

Characteristics	Number of patients
Grade of therapeutic response:	
I	396
II	23
III	Non
Any untoward effects	Non
Bio status:	
Altered	Non
Drug related adversity	Non

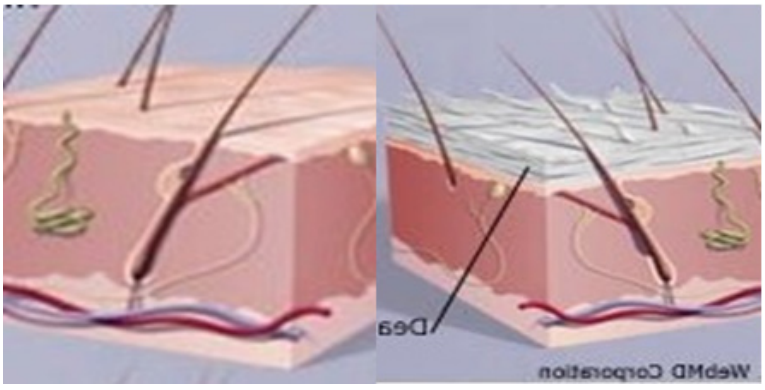
Table 7: *Showing outcome of therapy.*

Result

94% patients of psoriasis of varied degree of severity had complete cessation of agonizing presentation in 3 years without any supplementation, drug adversity, therapy withdrawal sequel.

Discussion

Psoriasis, a result of abnormal excessive and rapid growth of epidermis layer of skin and premature maturation of keratinocyte inducing dermal inflammatory cascade involving dendritic cell, macrophages and T cells which move from the dermis to epidermis and secrete inflammatory chemical signals (Cytokine) i.e.- interleukin 36¥, tumour necrosis factor -α, interleukin and interleukin 6 and 22. [21-24]



(Normal skin) (Psoriatic skin)

DNA released from dying cells acts as an inflammatory stimulus and stimulate dendritic cell. The present study showing complete relief of presentation and non-had any recurrence, relapse or any drug or disease related untoward effects suggest immunological improvement by self-blood due to generation of specific antibody which binds with specific protein and check cell death rate, curb T cell, block Tumour necrosis factor (TNF-α) and stop release of chemical messenger and limit dendrite cell and favours Th2 cells Cytokine secretion pattern over a Th1/Th17cell cytokine profile Dendritic cell bridge the innate immune system and adaptive immune system . [25-32] Betamethasone calm the antigen and antibody reaction and alleviate the presentation.

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