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Self Blood with Betamethasone in Management of Rheumatoid Arthritis

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Abstract: *RA an auto immune disorder causing degenerative joint lesion for which anti arthritic analgesics, steroid and DMARDs are commonly used with an aim to improve pain, decrease inflammation and improve quality of life. Pain of RA is of nociceptive type than neuropathic and cure remain an existing challenge..*

Thus in the present study 210 cases of non diabetic non hypertensive RA cases with poor to worse quality of life non responsive to conventional practiced therapeutics ,a treatment module constituting Self blood 2ml with Inj Betamethasone 4mg (1ml) intramuscular every 4th day , (Inj Calcium Sandoz (Calcium gluconate and Calcium lactobionate)10 ml intravenous slowly every 15th day , Inj Methyl cobalamine 1500mcg with Nicotinamide and pyridoxine 100mg each intravenous every week , Cap Vit D_3Cap Neurovit 1 cap daily and Acceclofenac 200mgwith Rabiprazol 20mg SR capsule daily) shows excellent therapeutic response in all the cases. Self bloof intramuscular induces antibody aginst RA antigen resulting in immunosuppression and competitive inhibition of immune body formation restricting joint inflammation ,degenerative changes of the joint and facilitate better joint mobility and ultimately improve quality of life .

Keywords: *Auto immune, Rh factor, Degeneration, Antigen, Antibody, DMARD, neurotonic, quality of life*

1. INTRODUCTION

Rheumatoid arthritis ,an auto immune disease causing degenerative joint changes resulting in deformity and movement restriction with agonizing pain ful movement at joints, thus make the person crippled or handicap even for their routine activities [1,2].. This affect 0.5%-1% people of the developed world and 5-50 cases every lakh population in added every year. Onset during middle age is more common and women are affected 2.5 times more than men [1]. The pain associated with Ra is induced at the site of inflammation and termed as Nociceptive than neuropathic. Glycan (Oligo saccharide) alteration causes joint inflammation. Plasma cell derived from B lymphocytes produces Rh factor,ACPA of the IgG and IgM type in large quantity.[2]The goal of treatment is to alleviate pain, decrease inflammation and improve functional capabilities. Commonly used therapeutics constitutes Analgesic, Steroid and disease modifying anti rheumatoid drugs (DMARDs)[3,4] fail to ensure cure or complete symptomatic relief . Considering its auto immune pathogenesis, a biological regime constituting Self blood 2 ml with Betamethasone been evaluated in non diabetic rheumatoid arthritis cases.

2. MATERIAL & METHODS

Patients of rheumatoid arthritis diagnosed on the basis of clinical presentation and confirmed by serological & radiological evaluation, non responsive to the conventional anti rheumatoid regimes were selected to evaluate the clinical efficacy and safety profile of Self blood with Betamethasone intramuscular in non diabetic or controlled diabetic patients.

Each selected patients were interrogated for the history of disease, therapeutics consumed and their clinical response and were examined thoroughly to evaluate the quality of life and movement at the joints.

All patients were serologically evaluated for Rheumatoid factor, C-reactive protein, Anti nuclear antibody (ANA), Renal function test, hepatic enzymes, hematological values and radiological examination for joint status. In addition each patients were assessed for pre and post therapy (after 6 month) for hematological and hepato renal parameters.

Based on the therapeutic status and clinical presentation, patients were classified in to the following grade of severity [5]

Severity Grade	**Characteristics**
Grade I	Patient suffering from less than 2 yrs without any joint deformity and restricted movement, not taken DMARD
Grade II	Patients suffering >2 yrs but less than 5 yrs,taken anti arthritic, steroid, parenteral Calcium , vitamin D3 ,improves pain Not taken DMARD
Grade III	Patient suffering from > 5 yrs taken all the therapeutics including DMARDs, present with joint deformity and handicap
Grade IV	Patient suffering from >10 yrs, handicap due to joint deformity, taken all the therapeutics without any relief

Each selected patients were advocated a regime constituting –

- Self blood 2 ml with Inj Betamethasone 1 ml intramuscular every 4th day till patient show improvement.
- Inj. Calcium Gluconate 10 ml every 21st day intravenous very slow
- Inj Methyl Cobalamine with B complex every 4th day slow intravenously
- Cap. Vitamin D_3 60K , 1 cap every week,
- Cap Neurovit, a neuro regulator ,1 cap daiy
- Tab Aceclofenac 200mg SR with Rabiprazol 20 mg 1 tab daily
- Avoid non vegetarian diet

Each patients were given a follow up card with facility to enter relief and adversity (if any)

Follow up Card

Particulars	Duration in Weeks										
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th
Relief in joint pain											
swelling											
movement											
Quality of life											
Agony											
General - condition											
Urine output											
Tingling & Numbness											
Muscle bulk											

After 3 months of therapy patients hematology, hepatic enzymes and renal function parameters were repeated to adjudge the safety profile.

3. OBSERVATIONS

Among the selected 210 patients of non diabetic non hypertensive RA, 60 were male and 150 were female of age group 35-55 yrs. (Table -1), Pie diagram showing sex wise composition.

Table1. *Shows distribution of patients as per age and sex*

Age group A	**Number of patients**		
(in yrs)	Male	Female	Total
35-40	24	52	76
40-45	16	38	54
45-50	11	34	45
50-55	09	26	35

Pie diagram showing sex wise composition:

Common presentation i.e.- agonizing joint pain, swelling of the joint and physical in capabilities were common among all whereas 190 cases had wasting and worst and poor quality of life in 70 and 40 cases respectively (Table -2)

Table2. *Showing Presenting Complaints*

Presenting complaints	**Number of patients**
Agonising joint pain:	210
Swelling of the joint:	210
Wasting:	190
Physical incapabilities:	210
Quality of life:	
Poor-	040
Moderate	100
Worse	070

51.9% patients were suffering with the presentation for >5 yrs where as only 1.9% were suffering from ≤ 1 yr (Table-3)

Table3. *Distribution of Patients as per duration of illness*

Duration of illness	**Number of patients**
(in yrs)	
< 1 yr	04
1-2 yr	07
2-3 yr	08
3-4 yr	09
4-5 yr	73
>5 yr	109

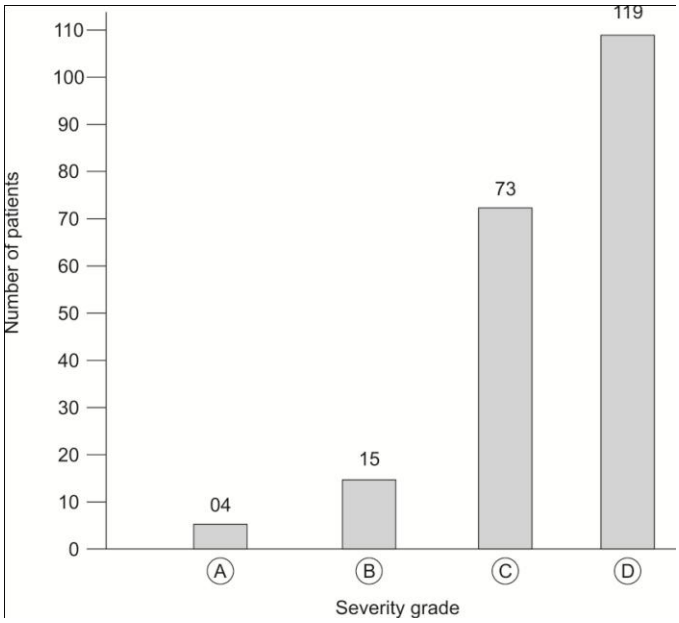
Majority (64.8%) have taken all the available anti rheumatoid treatment without any relief while 2patients(0.95%) have not taken Disease modifying anti eheumatoid drugs but only anti arthritic and neurovitamins . (Table -4)

Table4. *Distribution of patients as per their therapeutic status*

Therapeutics taken	**Number of patients**
Anti arthritic analgesic + Neuro vitamin supplement	02
Antiarthritic analgesic+ parenteral Calcium +Vitamin D3+Steroid	08
Anti arthritic analgesic +parenteral Calcium supplement+ Vitamin D3 + Disease modifying anti rheum-atoid drug supplement	74
All the above	136

All selected patients reveal raised C reactive protein, Rheumatoid factor, Erythrocyte sedimentation rate and radiological appearance shows joint deformity (Table- 5)

Table5. *Bar diagram showing distribution of patients as per clinical severity*



All cases had onset of pain relief and decline in joint swelling by 15th day of therapy ,all cases of illness of <1 yr duration shows complete relief of all the presentation by 3rd month while all cases illness of duration >5 yrs taken 9 months in complete normalcy of joint movement and texture.

No patient shows any alteration in pre therapy hematological, hepatic and renal index assessed on complete relief of presentation.

All patients irrespective of their duration of illness, severity grades achieved excellent clinical response while 20 patients of grade IV severity and illness duration >5 yrs shows grade II response .

No cases had any worsening of presentation but had improved quality of life.

Table6. *Showing serological and radiological status of the selected patients.*

Particulars	**Number of patients**
Serological:	
Rh factor raised	210
C reactive protein increased	210
Anti nuclear Antibody increased	210
Renal Parameters:	
Blood urea	
≤ 30 mg	210
Serum creatinine	
≤ 1.5mg %	210
Hepatic Enzymes:	
SGOT:	
>35 IU	000
< 35 IU	210
SGPT	
>30 IU	000
<30 IU	210
Hematlogy:	
Hemoglobin	
≤10gm%	104
>10gm%	106
Radiological:	
Joint destruction	209

Table7. *Outcome of the study*

Clinical presentation	Number of Patients
Pain relief	210
Joint swelling	210
Mobility:	
Normal	210
Quality of life	
Improved	210
Post therapy;	
Rh factor titre	
Decreased	210
ANA	
Decreased	210
C reactive protein	
Decreased	210
Hemoglobin	
Improved (>12gm%)	210
Heapatic enzymes	
SGOT;	
<35 IU	210
SGPT	
<30 IU	210

4. DISCUSSION

Rheumatoid arthritis, an auto immune disorder is due to abnormal immune response of the body against substances and body tissues which causes thickness of joint capsule, affects under lying bones and cartilage, tendon teethering, erosion and destruction of joint surface leading to impaired movement and deformity[5]. Considering the ethics- any protein entering the body ,body produces antibody against the particular protein ,hence Self blood constituting the antigen for Rheumatoid arthritis when enters the body produces antibody to counter the effect of the antigen thus check immune induced inflammation of the joint and promote natural healing. Parentral Calcium supplementation helps bony regeneration, vitamin D3 help in bony reconstruction and anti arthritic analgesic relieves agonizing pain.

5. CONCLUSION

Self blood 2ml with Betamethasone 4mg (1ml) intramuscular every 4th day proves worth in improving clinical presentation and quality of life even in RA patients non responsive to DMARDs

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