RESEARCH PAPER | Medical Science | Volume : 5 | Issue : 7 | July 2015 | ISSN - 2249-555X

A Rare Case of Pyrexia of Unknown Origin in a Young Male.

KEYWORDS: PUO- Pyrexia of unknown origin, SLE – Systemic lupus erythematosus, dsDNA-double stranded Deoxy-ribose Nucleic acid .

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ABSTRACT *SLEis aclinicallyheterogenous autoimmune disorder of unknown etiology. The prevalence of the disease is more among young womenbut is alsoknown to occur in men.It is most common in women of reproductive age and the diagnosis is probably missed in some men.Demographically, the ratio of the disease among the sexes is found to be 9 female :1 male.Sex hormones are suggested to modify susceptibility to an expression of SLE.*

Clinicalpicture-Our case is a 35 year old male with low grade fever,weight loss and arthralgias since 6 months initially thought to be tuberculosislater diagnosed asSLE with ds DNA positivity and renal involvement.

A 35 year old male patient , chronic cigarette smoker , with past medical history of hypothyroidism since 2006 (on Tab. levothyroxine 125 micrograms daily) and right pleural effusion in 2008 (treated with 6 months AKT for the same) presented with 6 month history of low grade fever – one spike of 100 - 101 degree fahrenheit during the evening with bilateral symmetrical polyarthralgia with early morning stiffness mainly involving wrist , metacarpophalangeal and knee joints (used to subside with analgesics) and weight loss of 6 kg. He also gave history of alopecia .

Patient did not have any history of cough / hemoptysis / night sweats , rash or early morning stiffness . He also denied any blurring of vision with eye redness / nodular rash over shins , oral or genital ulcerations or any symptoms of hyperthyroidism .

Examination revealed tachycardia with mild pallor and intermittent fever spikes , non significant cervical lymphadenopathy and tender knee and wrist joints with evidence of synovitis. Systemic examination was unremarkable except for mild hepato – splenomegaly .

Patient was investigated to rule out chronic infection (Tuberculosis or HIV status) , thyroiditis and autoimmune pathology (investigations as in Table 1) .

Investigations (as in Table 1) revealed anaemia , ANA 2+ with positive dsDNA and Anti Sm antibody with hypocomplementemia , active urine sediment with proteinuria and pyuria , normal Creatinine and negative urine culture , normal Thyroid function tests and Pulmonary tuberculosis ruled out by HRCT Chest in a seronegative patient.

TABLE 1

INVESTIGATIONS (with units)	Patient values
Hb (g / dl)	12.1
WBC (cells / mm3)	5200 (60 N 32 L)
Platelet (lakhs per mm3)	2,15,000
HIV , HBsAg, Anti HCV	Negative
ANA (immunofluoroscent technique) 1:80 titre	2+ , homogenous pattern
dsDNA	+
C3 (Normal - 90-180)	39
C4 (Normal- 10-40)	2
Anti Sm	+
24 hour urinary protein	448 mg / day
USG KUB	Enlarged kidneys with raised cortical echotexture
ESR	75
Thyroid profile	Normal
Serum creatinine (mg%)	0.8
Serum Calcium (mg / dl)	9.1
CPK	Normal
LDH	Normal
Serum electrolytes (Na / K / Cl) (mEq / L)	135 / 4.1 / 101
Anti CCP	Negative
RA factor	Negative
Urine Routine	0.03 % protein 10 - 15 RBCs / hpf 10 - 15 pus Cells / hpf 500 hyaline or granular casts +
Serum Albumin (g / dl)	3 .0
Serum Globulin (g / dl)	4.0
Chest x ray	Normal
HRCT chest	Normal
X ray hand (**figure 1**)	Normal (No evidence of erosions)

Volume : 5 | Issue : 7 | July 2015 | ISSN - 2249-555X

Patient's renal biopsy (figure 2) revealed Class 3 lupus nephritis (ISN / RPS classification) with activity index 4 and chronicity index 0.

During his course , patient started having high grade fever 38.5 – 39 degrees celsius with severe knee joint pains and tenderness. After ruling out any acute infection , patient was given intravenous pulse Methylprednisolone for 5 days followed by oral Mycophenolate sodium in gradually increasing doses. He was started on oral prednisolone at 0.5 mg / kg / day in tapering doses and Mycophenolate sodium continued . He continues to be afebrile and asymptomatic . On follow up , his complement levels have normalised , proteinuria decreased to 300 mg / day , serum albumin increased to 4.2 g / dl and stable creatinine levels.

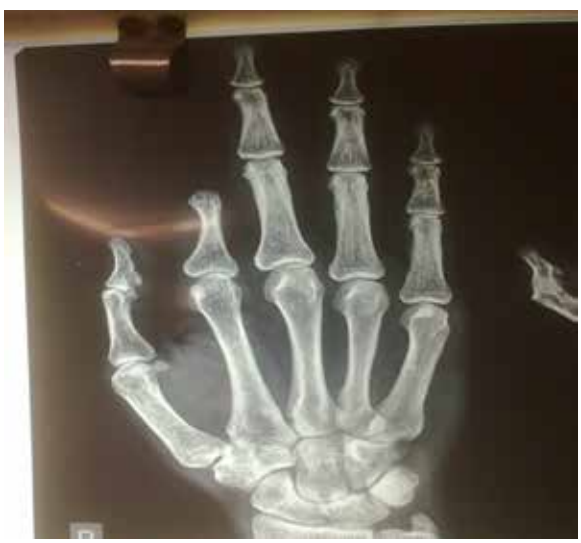

Figure 1 - hand X ray to rule out erosive arthritis , note the incidental finding of absence of distal 2 phalanges of the index finger that was due to trauma.

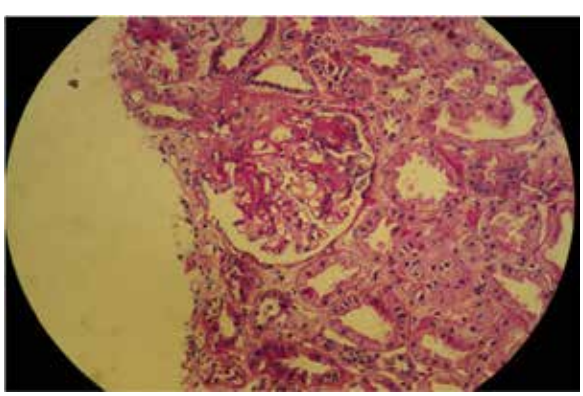

Figure 2 – renal biopsy showing focal proliferative lupus nephritis.

Discussion-

Systemic lupus erythematosus (SLE) is a clinically heterogeneous autoimmune disease characterized by the presence of autoantibodies directed against nuclear antigens. It is, by definition, a multi - system disease and patients present in many different ways, in terms of clinical and immunological manifestations.[1]

Male sex has been historically identified as a factor of bad prognosis for lupus and rheumatoid arthritis. Human SLE affects females more frequently than males with a ratio 9:1. Ten percent of the total population were men, with a ratio of one man for every nine women (1 : 9) , but this ratio decreased (1 : 7) when there was renal disease and decreased further (1 : 6) when patients who died were analysed. This sex difference may be due to sex hormones. However, the role of sex hormones in the development and clinical expression of SLE is complex.[2] On HLA typing , increased frequencies of B8 and DR3 antigens in SLE males has been observed compared with normal controls.[3]

Sthoeger et al, reported a higher incidence of neurological disease, nephritis, thrombocytopenia, vasculitis and hepatosplenomegaly in males. In contrast, hematological manifestations and serositis were also seen in lower proportions than in most of other races. As per study of Patwardhan et al, renal histopathological findings revealed that mesangial proliferative glomerulonephritis was more prevalent in males.[4]

To summarise , males predominantly have renal manifestations (class 2 nephritis > class 4 nephritis > others) , cardio-vascular manifestations (more myocardial infarction , hypertension , pericarditis) , hematological (Coombs positive hemolytic anaemia , lymphopenia , thrombocytopenia), severe immunological damage (anti ds-DNA , IgG anticardiolipin , U1 RNP , lupus anticoagulant , low C3 , C4) and less commonly have muco-cutanoeous manifestations (except discoid lupus) and arthralgias.

Our case presented primarily with pyrexia of unknown origin later diagnosed to be SLE with arthralgias , renal involvement (class 3 lupus nephritis) , past history of serositis , alopecia and immunological involvement (ANA +2 , anti ds-DNA + , low C3 , C4) but no hematological or cardiovascular involvement.

He responded very well to pulse steroids followed by oral steroids with Mycophenolate sodium and continues to be asymptomatic on follow up. We plan to gradually taper off his steroids and continue Mycophenolate sodium for 2 years with monitoring of creatinine and albumin levels.

Conclusion - There are major clinical differences between male and female lupus : more renal and hematologic manifestations and less dermatologic lupus in males . A proper and early diagnosis is needed in male sex in order to minimise mortality associated with the disease.

REFERENCE

1. Manson JJ, Rahman A. (2006) Systemic lupus erythematosus.OrphanetJournalof Rare Diseases.1:6. Doi:10.1186/1750-1172-1-6. | 2.Garcia MA , Marcos JC, Marcos AI et al.(2005)Male systemic lupus erythematosus in a Latin-Americaninception cohort of 1214 patients.Lupus:14, 938–946 . | | 3. Miller HM , Urowitz MB, GladmanDD et al. (1983)Systemic lupus erythematosus in males. Medicine63 : 327 - 32 | | 4.Patwardhan M, Pradhan V, Rajadhyaksha A et al.(2012December) Clinical and serological features of male Systemic Lupus Erythematosus patients from Western India .Indian Journalof Rheumatology : Volume 7, Number 4; pp. 204-208 |