Patterns of Organ Involvement in SLE and Treatment Outcome in Renal Lupus-An Experience in a Tertiary Care Hospital in Bangladesh

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Systemic Lupus Erythematosus is a *multisystem autoimmune disease* in which the immune system produces antibodies to cells within the body leading to widespread inflammation and tissue damage.

SLE can affect

- Joints
- Skin
- Brain
- Lungs
- Kidneys
- Blood vessels

Why we are here…….?

In our country although SLE is not uncommon but a systematic observation of its symptoms and treatment outcome was not been observed extensively.

OBJECTIVES:

- To see the symptoms in different organ involvement .
- To see the treatment outcome in renal lupus.
- SLE disease Activity Index (DAI) during presentation and after long term treatment.

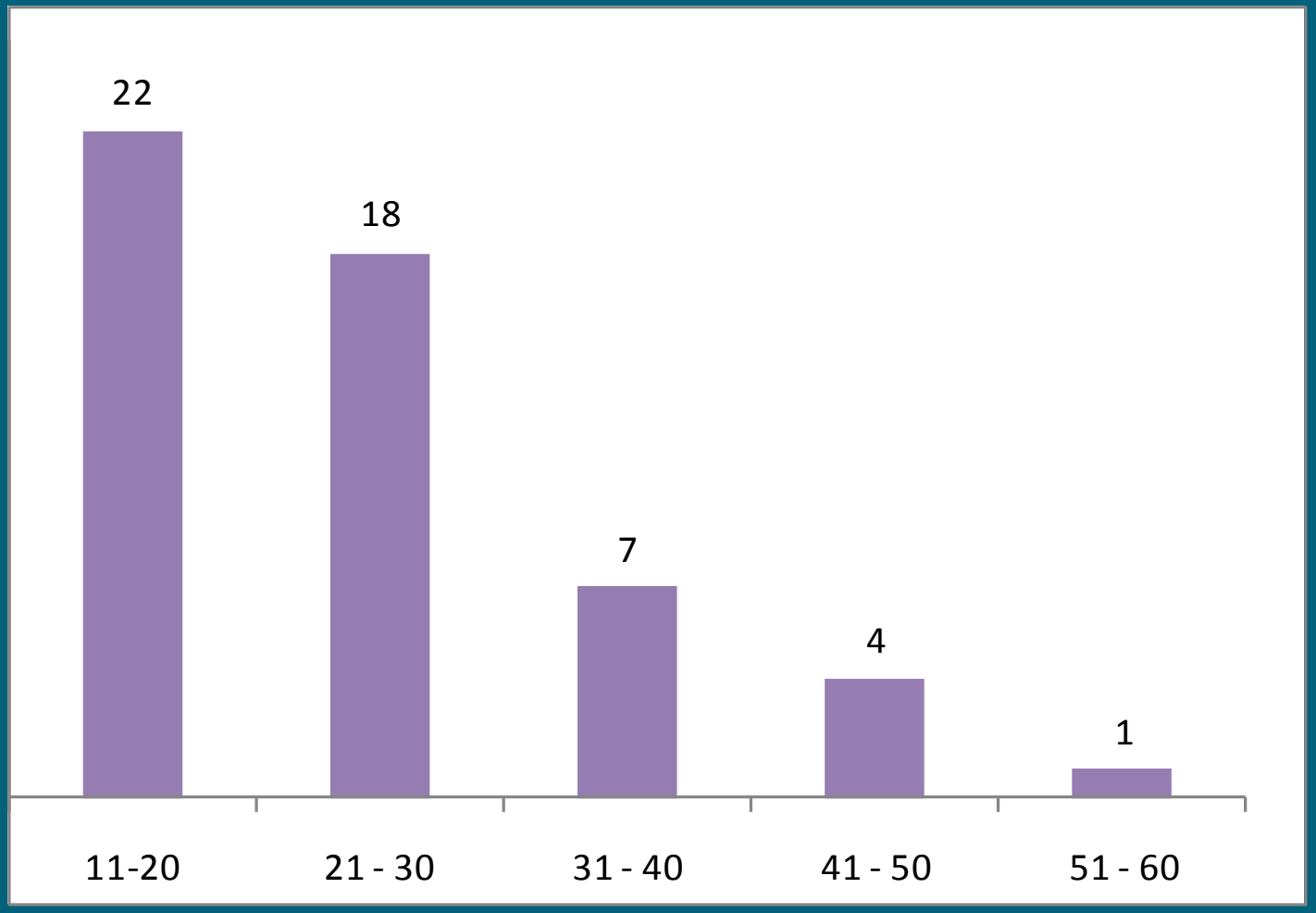
Materials and Methods:

- A retrospective study carried out in the department of medicine, ShSMCH.
- Study period – July 2007 to February 2011
- Data from SLE register books of the Medicine Unit-2.
- Organ involvement on the basis of ARA criteria

Results

Total number of patients	n=52
Male	5
Female	47
Female : Male	9.4:1

Age distribution(n=52)



Most Frequently Occurring Features
With percentage

- Fever 39 (75%)
- Multiple joint pain 32 (61.53%)
- Oral Ulceration 30 (57.69%)
- Photosensitivity 19 (36.53%)
- Alopecia 21 (40.83%)
- Malar rash 20 (38.46%)
- Discoid rash 9 (17.30%)

Malar rash in SLE

Oral ulcer in SLE

Organ Involvement

- *Renal* 19
- *Hematology* 7
- *CNS* 15
- *Cutaneous* 20
- *Cardiac* 6
- *Pulmonary* 11

Lupus Nephritis

Mode of presentation (n=52)

Features	Number
24 Hr. UTP *> 0.5 gm*	*19 (35.85%)*
Cast	13 (25%)
RBC	11 (21.15%)

Renal Involvement

Total number of patients	19
Biopsy done	15
Failed	1

Histopathological classification	No. of patients
Class 1	1
Class 2	0
Class 3	2
Class 4	9
Class 5	2
Class 6	0

CNS and Hematological involvement

Features	No of Pt	%
Neurological feature – lupus headache, seziure,	15	29
Bleeding manifestations- menorrhagia, gum bleeding, purpura and hematemesis	7	13.46

Cutaneous involvement

Features	No of Pts	%
Malar rash	20	38.46
Discoid rash	9	17.30
Cutaneous rash--- vascular, macular, vesicular, pustular with crops	17	32.69

Frequency of features

Features	No of Pt	%
Other musculoskeletal features- myalgia, proximal muscle weakness	20	38.46
Reynaud's phenomena	12	23.07
Others- cervical lymphadenopathy, Jaundice	 1 1	 1.9 1.9

Respiratory Involvement (n=11)

Features	No of Pt 11	%
pleural effusion (CXR)	5	45.45
Lupus pneumonitis	4	36.36
Chest pain, Respiratory distress	7	63.63
Pleural rub	1	9.09
Pulmonary infiltrate	2	18.18

Cardiovascular Involvement

Myocarditis	*1 (16.67%)*
Heart failure	*1 (16.67%)*
Pericardial effusion	*4 (66.66%)*

Immunological Abnormalities (n=52)

Investigation	Frequency	%
ANA positive	44	84.61
Anti dsDNA	30	57.6
Low complement (C3,C4)level	13	25
Anti phospholipid antibody	1	1.9

SLE DAI

- Calculated in 42 patients
  Range: 6-58

Renal lupus Rx outcome

During presentation *(no of pt.)*

Urine RME-

Pyuria(pus cell>5/HPF)	*8*
Hematuria(RBC>5/HPF)	*11*
Urinary cast	*13*
Albumin(+ or more)	*23*

24hr Urinary total protein(>0.5gm) *19*

Renal lupus……

- Out of 19 patients 15 patients were treated with IV pulse cyclophosphamide therapy.
- During presentation the mean SLE DAI was 34.5±2.9

Renal lupus (Rx outcome) n = 15

- After 3 months the mean SLE DAI was 4.5±2.8
- After 6 months the mean SLE DAI was 1.3±2.2

Limitations of the study

- This is a small study to reflect any conclusive comment.
- Further follow up study is on going.

Conclusion:

- Multiple organ involvement is common in SLE.
- Most of the patients came in late stage with renal or CNS involvements.
- Aggressive treatment in case of organ involvement gives better outcome.