

# LEISHMANIASIS IN DHAKA MEDICAL COLLEGE & HOSPITAL

## OUR EXPERIENCE OVER LAST 3 YEARS (2015-2017)

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# Introduction:

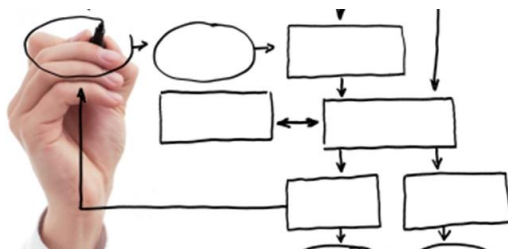


- **Caused by:** protozoan *Leishmania* parasites
- **Transmitted by:** female phlebotomine sandflies
- **WHO reports** endemic leishmaniasis in 98 countries and 3 territories on 5 continents:
  - 90% of VL: Bangladesh, Brazil, Ethiopia, India, South Sudan, and Sudan
  - 95% of CL: Afghanistan, Algeria, Brazil, Colombia, Iran, and Syria
- **Annual incidence:**
  - 0.2-0.4 million cases of visceral disease
  - 0.7-1.3 million cases of cutaneous disease
- **Annual Death:** 20000- 30000 cases



# Methodology

- **Study design:** hospital based retrospective observational study
- **Study site:** Department of Medicine and Paediatrics, Dhaka Medical College Hospital
- **Study population:** Adult and paediatric patients who were admitted as confirmed cases or diagnosed as cases of Leishmaniasis after admission
- **Study period:** January 2015- December 2017
- **Sample size:** 55



# Methodology

## Inclusion criteria:

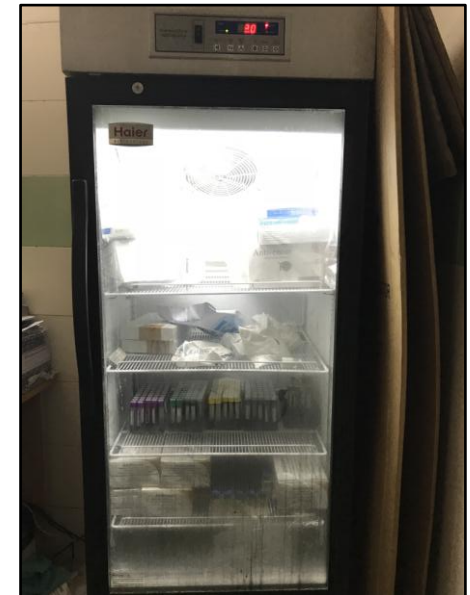


- Patients of both gender between the ages of 2-70 years were eligible if they had symptoms and signs of leishmaniasis:
  - fever more than two weeks
  - weight loss
  - anaemia and
  - splenomegaly, hepatomegaly
- rK39 rapid test positivity
- Demonstration of LD bodies on microscopy of a splenic aspirate smear or bone marrow.



# Methodology

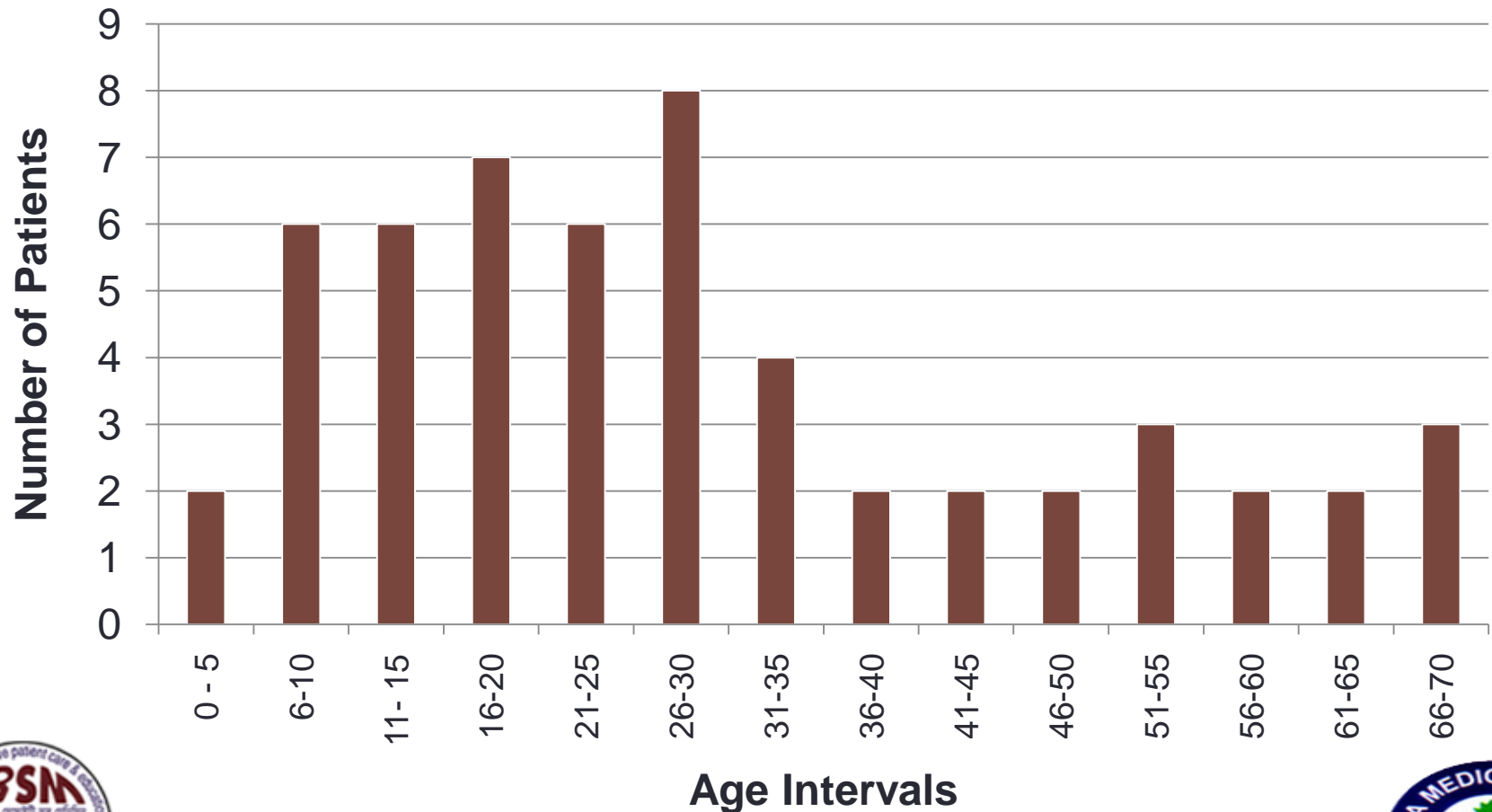
- Methods used:
  - Details of demographic features, clinical presentation, social background were recorded in the printed case record form by doctors.
  - Clinical examination
  - Systematic analysis of demographic variables
  - Analysis of blood specimens, splenic and bone marrow aspirates.



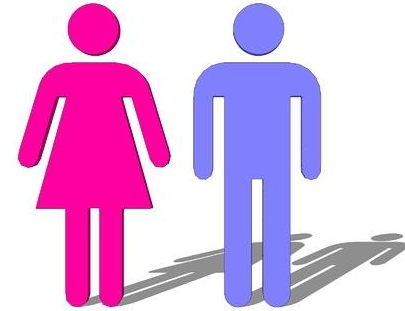




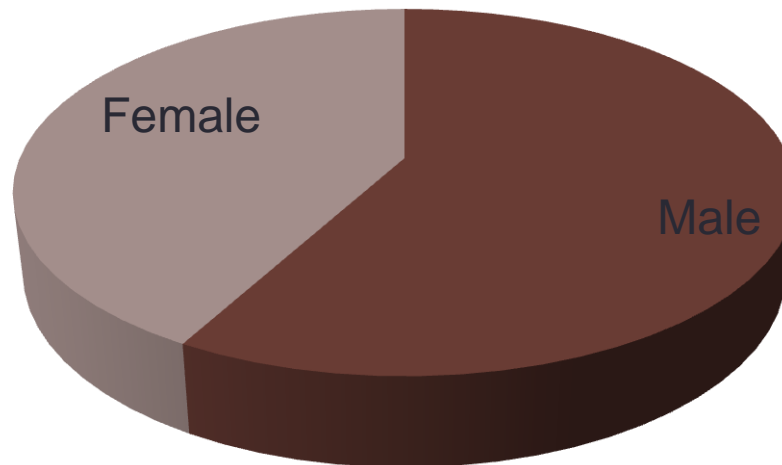
# Distribution of patients: According to age:



# Distribution of patients: According to Sex:



Gender	Frequency	Percentage
Male	32	58
Female	23	42
Total	55	100

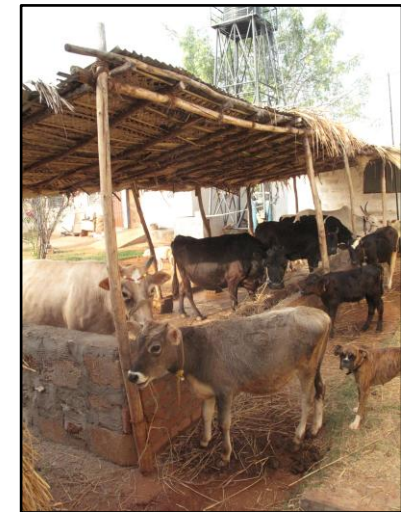




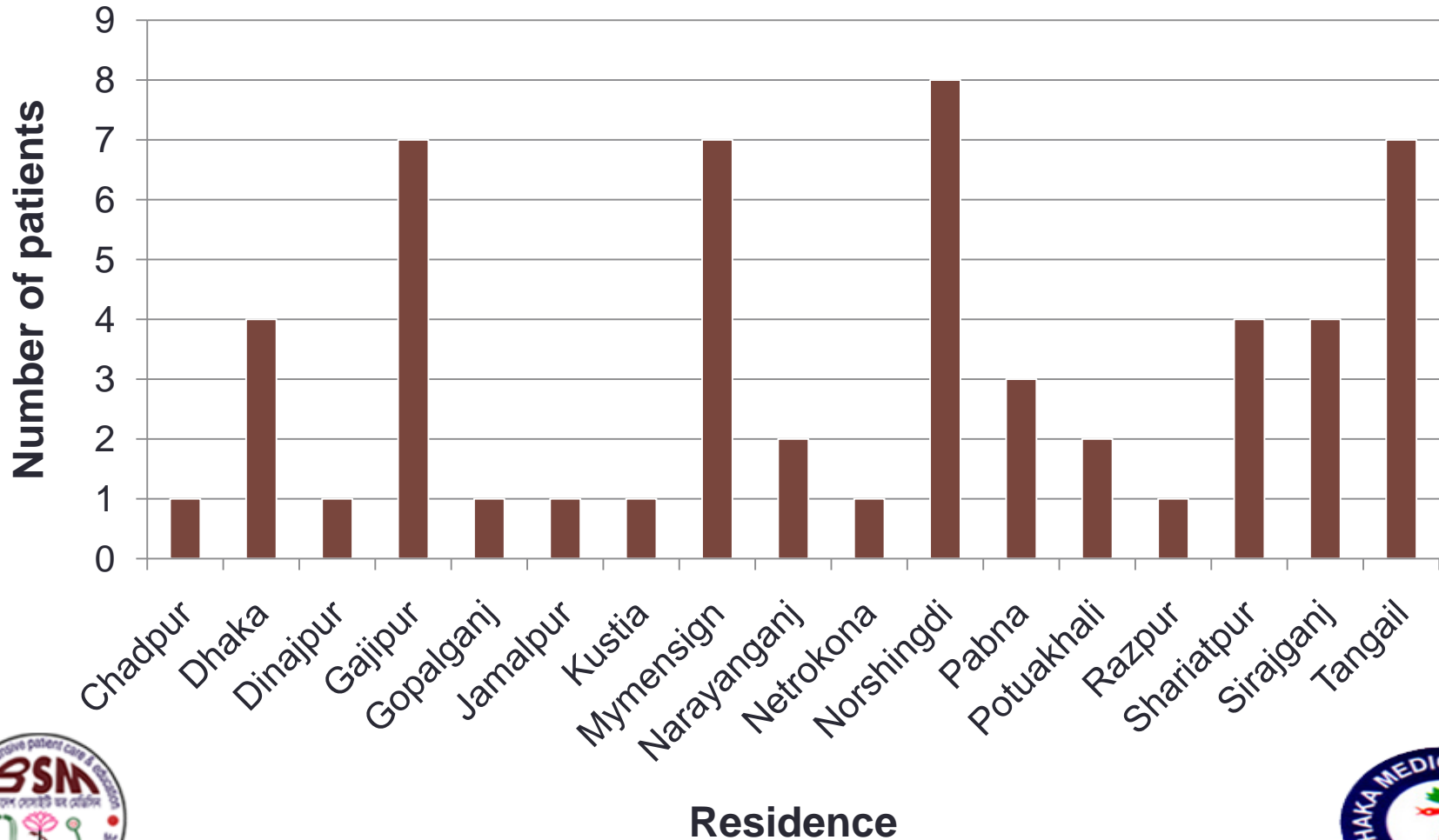
# Distribution of patients: According to Housing types:

Housing types	Frequency	Percentage
Kacha ghor	22	40.00
Tinshed	15	27.31
Building	11	20.00
Semi Pacca	7	12.72

Cowshed	Frequency	Percentage
Present	32	58.18
Absent	23	41.81



# Distribution of patients: According to Residence:



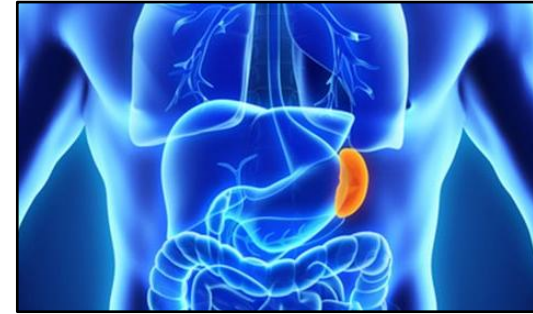
# Distribution of patients: According to symptoms:



Symptoms	Number of patients	Percentage
Fever	41	74.5
Anaemia	29	52.7
Jaundice	5	9.1
Lymphadenopathy	4	7.2
Skin changes	5	9.1

Duration of Fever	Number of patients	Percentage
2wks - 2 months	12	29.26
2 – 4 months	11	26.82
4 – 6 months	5	12.19
> 6 months	12	29.26

# Distribution of patients: According to Splenomegaly:



Spleen size during examination	Frequency	Percentage
< 5cm	4	7.27
5 – 10cm	15	27.27
11 – 15cm	10	18.18
> 15cm	6	10.91
Not palpable	7	12.72

# Distribution of patients: According to Hepatomegaly:



Liver size during examination	Frequency	Percentage
< 4cm	5	9.09
4 – 7cm	14	25.45
8 – 11cm	4	7.27
> 11cm	3	5.45
Not palpable	17	30.91

# Distribution of patients:

## Demonstration of LD body & rk39 test :

Materials	Positive patient	Percentage
Bone marrow aspiration	23	41.82
Splenic aspiration	21	38.18
Liver biopsy	1	1.82

Test	positive patient	Percentage
rK39 RDT	44	80.00





# Distribution of patients: According to Leishmaniasis types:

Type of Leishmaniasis	Number of patients	Percentage
NKA	47	85.45
PKDL	2	3.64
Relapse	3	5.45
Treatment failure	1	1.82
Cutaneous Leishmaniasis	1	1.82



# Distribution of patients: According to treatment:



Treatment	Number of patients	Percentage
Inj. AmBisome	50	90.91
Combination of Inj. AmBisome and Miltefosin	4	7.27
Oral Miltefosin	1	1.82



# Distribution of patients: According to Adverse effect:



Adverse effects	Positive patients	Percentage
Fever	7	12.72
Anaphylaxis	0	0.0
Arrhythmia	0	0.0
Shivering	5	9.1
Renal impairment	2	3.63
Back pain	1	1.82



# Distribution of patients:

According to follow up by fever and appetite in different follow up



Variables	Frequency	Percentage
Fever		
Before treatment	28	93.3
1 <sup>st</sup> visit (after 1 month)	1	3.3
2 <sup>nd</sup> visit (after 6 months)	1	3.3
Appetite improvement		
1 <sup>st</sup> visit (after 1 month)	29	96.7
2 <sup>nd</sup> visit (after 6 months)	29	96.7



# Comparison of clinical and lab parameters before and after anti-leishmaniasis treatment

Parameters	Before treatment	1 <sup>st</sup> visit (1 month)	2 <sup>nd</sup> visit (6 months)
Hb (gm/dl)	9.6±5.1	10.56±0.96	11.26±0.98
Weight (kg)	38.82±12.54	41.89±12.30	44.93±12.03
Spleen size (cm below left costal margin)	6.5±3.3	2.78±2.55	0.53±1.30
Statistical analysis		P value	
Before treatment vs 1 <sup>st</sup> visit		< 0.001*	
Before treatment vs 2 <sup>nd</sup> visit		<0.001*	



# Conclusion:



- The study draws attention to different demographic variables with varied presentation of patients
- The study also highlights the impact of environmental conditions on the epidemiology of Leishmaniasis.
- Approaches to prevention, control, and treatment of Leishmaniasis in these areas should take into consideration.







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Thank You

