



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health, Nutrition & Indigenous Medicine

231, de Saram Place, Colombo 01000, Sri Lanka
Tele: + 94 11 2695112, Fax: +94 11 2696583, E mail: epidunit@sltnet.lk
Epidemiologist: +94 11 2681548, E mail: chepid@sltnet.lk
Web: <http://www.epid.gov.lk>

Vol. 44 No. 34

19th– 25th August 2017

Leishmaniasis A neglected tropical disease

Introduction

Leishmaniasis is caused by a protozoan parasite, and there are over 20 species of Leishmania at present. It is estimated 700,000 – 1,000,000 new cases and 20,000 to 30,000 deaths occur annually.

The disease is associated with malnutrition, population displacement, poor housing, a weak immune system, lack of financial resources and environmental changes such as deforestation, building of dams, irrigation schemes, and urbanization.

There are 3 main forms of Leishmaniasis named as visceral (also known as kala-azar and the most serious form of the disease), cutaneous (the most common), and muco-cutaneous. Visceral leishmaniasis (VL) is fatal if left untreated in over 95% of cases. It is characterized by irregular bouts of fever, weight loss, enlargement of the spleen and liver, and anaemia. It is highly endemic in the Indian subcontinent and in East Africa. An estimated number of 50,000 to 90,000 new cases of VL occur worldwide each year.

Cutaneous leishmaniasis (CL) is the most common form of leishmaniasis and causes skin lesions, mainly ulcers, on exposed parts of the body, leaving life-long scars and serious disability.

Mucocutaneous leishmaniasis leads to partial or total destruction of mucous membranes of the nose, mouth and throat.

Transmission

The disease is transmitted to humans by the bite of infected female phlebotomine sand flies. The epidemiology of leishmaniasis depends on the characteristics of the parasite species, the local ecological characteristics of the transmission sites, current and past exposure of the human population to the parasite, and human behavior.

Risk factors

1. Socioeconomic conditions

Poor housing and domestic sanitary conditions (such as a lack of waste management or open sewerage) may increase sand fly breeding and resting sites, as well as their access to humans. Sand flies are attract-

ed to overcrowded housing as these provide a good source of blood-meals. Human behaviour, such as sleeping outside or on the ground, outdoor occupational exposure and working in forest may also increase the risk of transmission.

2. Malnutrition

Diets lack of protein-energy, iron, vitamin A and zinc increase the risk of the infection progressing to kala-azar condition.

3. Population mobility

Epidemics of leishmaniasis are often associated with migration and the movement of non-immune people into areas with existing transmission cycles. Occupational exposure and widespread deforestation are also important factors.

4. Environmental changes

Environmental changes that can affect the incidence of leishmaniasis include urbanization, domestication of the transmission cycle, and the incursion of agricultural farms and settlements into forested areas.

5. Climate change

Leishmaniasis is climate-sensitive, and strongly affected by changes in rainfall, temperature and humidity.

Diagnosis

Incubation period of Cutaneous Leishmaniasis is usually one week to few months and Visceral Leishmaniasis is generally 2-6 months (Ranging from 10 days to several years). Laboratory diagnosis is done by microscopic identification of the non motile, intracellular form of the protozoa (amastigote). This is done by stained smears of material taken from the edges of the lesions and punch biopsies of the lesions or by culture of the motile, extracellular form (promastigote) on suitable media. For diagnosis, patients must be referred to the closest dermatology clinic, where expertise and facilities for skin biopsy and parasitological microscopy are available.

Treatment

Leishmaniasis is a treatable and a curable disease.

WEEKLY SRI LANKA 2017

Contents

Page

1. <i>Leading Article – Leishmaniasis A neglected tropical disease</i>	1
2. <i>Summary of selected notifiable diseases reported - (12th– 18th August 2017)</i>	3
3. <i>Surveillance of vaccine preventable diseases & AFP - (12th– 18th August 2017)</i>	4

Treatment of leishmaniasis depends on several factors including the type of disease, concomitant pathologies, parasite species and geographic location. There are some treatment options available for the treatment of CL which includes cryotherapy, parenteral pentavalent antimony compounds, oral antifungal drugs (Ketoconazole, Itraconazole etc.), Liposomal amphotericin B and Various other drugs

Prevention and control

Early diagnosis and effective case management reduces the prevalence of the disease and prevents disabilities and death. Early detection and prompt treatment of cases help to reduce transmission and to monitor the spread and burden of disease.

Vector control helps to reduce or interrupt transmission of disease by controlling sand flies, especially in domestic conditions. Control methods include insecticide spray, use of insecticide-treated nets, environmental management and personal protection.

Prevention of sand fly bites by staying away from shrub jungles and avoiding outdoor activities as much as possible, especially from dusk to dawn when the sand flies are most active, usage of bed nets whenever possible both during the day and night, usage of clothing that cover extremities and application of recommended insect repellents in exposed areas also can be useful.

Effective disease surveillance is important. Prompt data reporting is the key to monitor and take action during epidemics and in situations with high case fatality rates under treatment.

Social mobilization and strengthening partnerships – mobilization and education of the community with effective behavioral change interventions using locally tailored communication strategies.

Notification and investigation

Leishmaniasis is a notifiable disease in Sri Lanka. Reporting of all suspected or confirmed cases of Leishmaniasis is to the Medical Officer of Health (MOH) is therefore a legal requirement. Once such a case is notified to the MOH, in addition to carrying out a routine investigation and reporting, a special investigation form should also be filled by the MOH staff and sent to the Epidemiology Unit through the Regional Epidemiologist. When a case is reported, the Regional Epidemiologist with the assistance from the Regional Malaria Officer/Office could carry out an entomological survey to identify the vector with a view to plan out effective control measures.

R a n k	2012	2013	2014	2015	2016
1	Anuradhapura	Anuradhapura	Anuradhapura	Anuradhapura	Hambantota
2	Hambantota	Hambantota	Hambantota	Hambantota	Anuradhapura
3	Polonnaruwa	Polonnaruwa	Polonnaruwa	Matara	Matara
4	Matara	Matara	Kurunegala	Polonnaruwa	Polonnaruwa
5	Kurunegala	Kurunegala	Marata	Kurunegala	Kurunegala

The number of notified cases (Epidemiology Unit)

**Table 1 : Water Quality Surveillance
Number of microbiological water samples July 2017**

District	MOH areas	No: Expected *	No: Received
Colombo	15	90	63
Gampaha	15	90	NR
Kalutara	12	72	NR
Kalutara NIHS	2	12	NR
Kandy	23	138	NR
Matale	13	78	161
Nuwara Eliya	13	78	NR
Galle	20	120	39
Matara	17	102	0
Hambantota	12	72	NR
Jaffna	12	72	114
Kilinochchi	4	24	NR
Manner	5	30	30
Vavuniya	4	24	NR
Mullatvu	5	30	NR
Batticaloa	14	84	57
Ampara	7	42	NR
Trincomalee	11	66	NR
Kurunegala	29	174	21
Puttalam	13	78	NR
Anuradhapura	19	114	NR
Polonnaruwa	7	42	51
Badulla	16	96	88
Moneragala	11	66	74
Rathnapura	18	108	NR
Kegalle	11	66	9
Kalmunai	13	78	71

* No of samples expected (6 / MOH area / Month)
NR = Return not received

Sources

www.epid.gov.lk/web/images/pdf/Fact.../leishmaniasis_fact_sheet_2012_new.pdf
www.who.int/leishmaniasis

Compiled By Dr.A.M.U.Prabha Kumari Registrar in community medicine, Epidemiology Unit, Ministry of Health.

Table 1: Selected notifiable diseases reported by Medical Officers of Health 12th- 18th August 2017 (33rdWeek)

RDHS Division	Dengue Fever		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Chickenpox		Meningitis		Leishmaniasis		WRCD		
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	T*	C**	
Colombo	674	29070	1	44	0	3	0	24	0	26	4	75	0	2	0	12	0	0	9	258	1	20	0	1	21	100	
Gampaha	683	26688	1	24	0	12	0	16	0	8	1	38	0	9	1	13	0	1	7	206	1	23	0	2	6	99	
Kalutara	295	8542	2	43	0	3	3	14	0	50	3	197	1	6	0	4	0	0	3	393	8	100	0	1	3	99	
Kandy	518	9587	0	55	0	4	0	5	1	10	1	37	0	100	0	10	0	1	5	182	0	28	0	8	13	98	
Matale	148	2352	0	17	0	3	0	1	0	7	1	30	0	2	1	6	0	0	0	38	0	48	0	5	12	100	
NuwaraEliya	40	743	0	19	0	8	1	27	0	50	2	37	5	142	0	18	0	0	2	256	0	35	0	0	52	100	
Galle	229	4967	1	40	1	11	1	13	2	15	13	232	2	40	0	1	0	1	4	299	1	51	0	1	16	100	
Hambantota	63	2683	2	17	0	6	0	7	0	17	2	42	2	45	0	7	0	1	2	152	1	17	3	203	9	100	
Matara	233	5228	0	25	0	8	0	2	0	5	2	149	0	20	0	6	0	1	5	172	0	6	1	94	9	100	
Jaffna	88	3656	5	192	0	12	0	30	1	52	0	24	2	400	0	3	0	0	3	147	0	31	0	0	41	88	
Kilinochchi	11	403	0	13	0	1	0	10	0	1	0	3	0	12	0	2	0	0	0	3	0	8	0	2	24	100	
Mannar	1	500	0	5	0	0	0	2	0	1	0	2	0	2	0	0	0	0	0	13	0	0	0	0	0	16	100
Vavuniya	9	641	0	13	0	0	0	30	0	6	0	24	0	7	0	1	0	0	0	21	0	2	0	9	14	96	
Mullaitivu	2	266	0	8	1	2	0	4	0	5	0	15	0	4	0	1	0	1	0	15	0	5	0	1	9	99	
Batticaloa	51	4459	10	85	0	8	0	13	0	20	0	20	0	0	0	4	0	1	1	133	0	21	0	1	23	100	
Ampara	17	712	1	17	0	2	0	1	0	0	0	12	0	1	0	3	0	0	5	149	0	31	0	3	32	100	
Trincomalee	15	4589	1	18	0	2	0	5	0	17	0	17	0	12	0	17	0	0	2	106	0	18	0	5	19	97	
Kurunegala	341	8770	4	54	0	6	1	3	0	17	1	52	0	24	0	16	0	2	5	395	1	51	4	111	1	100	
Puttalam	311	4550	2	32	0	2	0	2	0	4	2	21	0	11	0	1	0	0	0	112	0	37	0	3	9	100	
Anuradhapur	57	2342	0	30	0	3	0	1	2	12	0	57	0	13	0	10	0	1	14	315	0	49	5	176	7	99	
Polonnaruwa	23	1100	0	12	0	5	0	9	1	6	0	31	0	6	1	7	0	0	2	174	0	12	2	96	4	97	
Badulla	102	2803	1	70	1	7	0	7	0	2	5	72	1	79	5	51	0	1	7	275	6	134	0	12	8	97	
Monaragala	113	1903	1	42	0	3	0	1	0	9	2	98	3	92	0	17	0	1	3	68	5	48	1	14	27	100	
Ratnapura	339	9440	2	111	4	69	0	8	0	8	15	436	0	22	0	58	0	0	4	233	4	132	0	16	9	99	
Kegalle	419	7634	3	30	1	9	0	4	0	17	2	59	2	59	0	11	0	0	6	203	1	50	0	8	9	100	
Kalmune	30	2048	1	62	0	4	0	4	0	278	0	8	0	0	0	2	0	0	1	115	0	16	0	0	12	100	
SRI LANKA	4812	145676	38	1078	8	193	6	243	7	643	56	1788	18	1110	8	281	0	12	90	4433	29	973	16	772	15	99	

Source: esurveillance.epid.gov.lk
 *T=Timeliness refers to returns received on or before 18thAugust, 2017 Total number of reporting units 344 Number of reporting units data provided for the current week: 342C** -Completeness

Table 2: Vaccine-Preventable Diseases & AFP

12th– 18th August 2017 (33rdWeek)

Disease	No. of Cases by Province									Number of cases during current week in 2017	Number of cases during same week in 2016	Total number of cases to date in 2017	Total number of cases to date in 2016	Difference between the number of cases to date in 2017 & 2016
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	00	00	00	00	00	00	00	00	00	45	46	- 2.1%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	02	00	00	00	00	00	00	00	01	03	05	216	266	- 18.7%
Measles	01	04	01	00	01	00	01	00	00	08	02	159	312	- 49.0%
Rubella	00	00	00	00	00	00	00	00	00	00	01	05	07	- 28.5%
CRS**	00	00	00	00	00	00	00	00	00	00	00	01	00	0%
Tetanus	00	00	00	00	00	00	00	00	00	00	00	11	07	57.1%
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Japanese Encephalitis	00	00	00	00	00	00	00	00	00	00	00	21	12	162.5%
Whooping Cough	00	00	00	01	00	00	00	00	00	00	04	11	45	- 75.5%
Tuberculosis	73	19	26	27	29	13	13	10	36	247	216	5418	6061	-10.6%

Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.
 RDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna, KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam, AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.

Data Sources:
 Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS,
 Special Surveillance: AFP* (Acute Flaccid Paralysis), Japanese Encephalitis
 CRS** =Congenital Rubella Syndrome

Influenza Surveillance in Sentinel Hospitals - ILI & SARI							
Month	Human				Animal		
	No Total	No Positive	Infl A	Infl B	Pooled samples	Serum Samples	Positives
August	275	36	32	4	1247	1002	0

Source: Medical Research Institute & Veterinary Research Institute

PRINTING OF THIS PUBLICATION IS FUNDED BY THE WORLD HEALTH ORGANIZATION (WHO).

Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to chepid@sltnet.lk. **Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication**

ON STATE SERVICE

Dr. P. PALIHAWADANA
 CHIEF EPIDEMIOLOGIST
 EPIDEMIOLOGY UNIT
 231, DE SARAM PLACE
 COLOMBO 10