WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
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Leishmaniasis

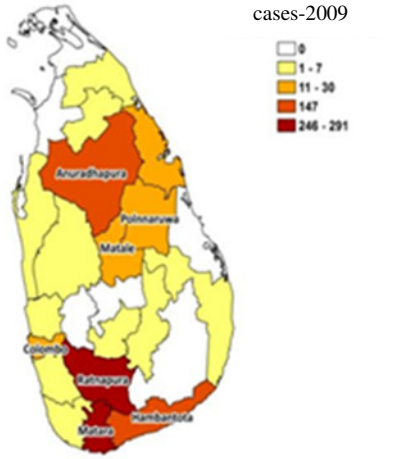
Leishmaniasis is a disease affecting predominantly people in the developing countries. 350 million people are at risk of contracting the disease and 2 million of new cases are reported yearly. The disease is caused by protozoan parasites from more than 20 Leishmania species.

Sri Lanka is endemic for cutaneous leishmaniasis by *Leishmania donovani*. First reported case of cutaneous leishmaniasis (CL) was in 1992.(Although a report describes several CL cases in 1978 which were imported from Saudi Arabia) Since then it has affected almost all provinces. During recent past the reason for its spread has been associated with the movement of military personnel into former uninhabited areas and over 2000 cases have been reported between 2001-2011,and this number is seen as an under-representation of the true incidence of the disease.

Infections are found in all ages, there is a difference, however between the North Central province, where most cases are in between the ages of 25 & 39 and mostly among the soldiers and in the south, where males and females are equally affected and most cases are between 10-19 years. The disease has been reported mostly in low altitude areas of Sri Lanka. However there are no data on seasonality are available in Sri Lanka.

Cutaneous leishmaniasis

Number of Cutaneous Leishmaniasis cases-2009



Population movement, Overcrowding, poor access to health services, malnutrition ,lack of safe water, poor hygiene practices and poor sanitation (contributes to presence of sandfly) promotes the risk to contract the disease. Several recent cases of mucocutaneous leishmaniasis and visceral leishmaniasis (VL) were reported and the risk of future visceral leishmaniasis outbreaks is a concern and cannot be excluded.

Isolation of parasites in culture for the first time has been made in 2002 with 5 isolates confirming *Leishmania donovani*, which is the agent of cutaneous leishmaniasis in Sri Lanka and showed that these parasites are closely related to those causing visceral leishmaniasis in the Indian subcontinent.

Disease transmission & Clinical manifestations

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Human to human transmission occurs via a bite of haematophagous females of some sandfly species (*P.argentipes*) and through blood transfusions (rarely). The disease is not directly transmitted from person to person; however, the disease can infect sandflies as long as parasites remain in the lesions of untreated cases, which is usually from a few months to 2 years.

The incubation period varies from about 10 days to several months.

Human leishmaniasis may manifest as single or multiple skin lesions, often self-healing within a few months but leaving unsightly scars. Hosts develop acquired immunity through cellular and humoral responses, but infection can spread through the lymphatic and vascular system and produce more lesions in the skin (cutaneous, diffuse cutaneous leishmaniasis), the mucosa (mucocutaneous leishmaniasis) and invade the spleen, liver and bone marrow (visceral leishmaniasis). Common symptoms are fever, malaise, weight loss and anaemia, with swelling of the spleen, liver and lymph nodes in visceral human leishmaniasis.

Without treatment, most patients with the visceral disease will die and those with diffuse cutaneous and mucocutaneous disease can suffer long infections associated with secondary life-threatening infections. Treatment should be considered even for self-healing cutaneous leishmaniasis, because of the disfiguring scars .

Diagnosis

CL-Clinical picture, confirmation with microscopic examination of skin lesion sample, PCR carried out in special laboratories.

VL-microscopic evaluation of splenic /bone marrow/lymph node aspirates.

Treatment

The treatment of leishmaniasis depends on several factors including type of disease, parasite species and geographic location. Leishmaniasis is a treatable and curable disease. All patients diagnosed as visceral leishmaniasis require prompt and complete treatment.

For cutaneous leishmaniasis cryotherapy is available in most district level hospitals. In some major hospitals with functional dermatology units, topical therapy with sodium stibogluconate is provided.

Prevention

WHO have designated leishmaniasis as a category 1 (emerging and uncontrolled) disease with prevention focused on vector control, control of animal reservoirs and research into potential vaccines. Prevention and control of leishmaniasis require a combination of intervention strategies because transmission occurs in a complex biological system involving the human host, parasite, sandfly vector and in some causes an animal reservoir host. Key strategies include:

- **Early diagnosis and effective case management** reduces the prevalence of the disease and prevents disabilities and death. Currently there are highly effective and safe anti-leishmanial medicines particularly for VL and access to these medicines has significantly improved.
- **Vector control** helps to reduce or interrupt transmission of disease by controlling sandflies, especially in domestic conditions. Control methods include insecticide spray, use of insecticide–treated nets, environmental management and personal protection.
- **Effective disease surveillance** is important. Early detection and treatment of cases helps reduce transmission and helps monitor the spread and burden of disease.
- **Control of reservoir hosts** is complex and should be tailored to the local situation.
- **Social mobilization and strengthening partnerships** – mobilization and education of the community with effective behavioural change interventions with locally tailored communication strategies. Partnership and collaboration with various stakeholders and other vector-borne disease control programmes is critical

Notification & Investigation

Leishmaniasis is a notifiable disease in Sri Lanka. Reporting of all suspected or confirmed cases of leishmaniasis 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.

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Compiled by Dr.H.H.W.S.B Herath of Epidemiology Unit

Table 1: Selected notifiable diseases reported by Medical Officers of Health 30th – 05th June 2015 (23rd Week)

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	69	4327	1	93	0	5	0	44	0	67	3	136	0	6	0	17	0	3	7	244	0	22	0	0	**69**	**31**
Gampaha	55	2076	5	49	0	3	0	18	1	25	11	229	0	6	5	80	0	0	4	113	0	10	0	2	**100**	**0**
Kalutara	17	737	2	54	0	4	0	22	1	67	7	157	1	1	0	15	0	1	1	153	2	27	0	0	**92**	**8**
Kandy	18	656	3	62	0	5	1	17	0	25	3	54	1	35	2	84	0	0	6	124	0	8	4	7	**100**	**0**
Matale	1	311	0	29	0	0	0	6	0	4	3	33	1	7	0	20	0	0	0	13	0	4	0	3	**69**	**31**
NuwaraEliya	0	88	9	184	0	3	0	9	0	0	1	15	0	35	0	40	0	0	2	61	0	29	0	0	**77**	**23**
Galle	1	383	0	32	0	1	0	4	0	14	1	123	0	31	0	4	0	0	6	134	0	26	1	2	**75**	**25**
Hambantota	1	156	0	14	0	0	0	5	1	10	1	50	0	27	0	24	0	0	0	72	0	5	6	143	**75**	**25**
Matara	4	225	1	38	0	5	0	4	0	44	2	93	0	19	0	16	0	0	1	133	0	11	2	42	**100**	**0**
Jaffna	11	1070	11	299	0	8	2	140	0	41	1	13	3	502	0	9	0	2	5	135	0	8	0	0	**83**	**17**
Kilinochchi	0	34	0	41	0	0	0	5	0	27	0	1	0	12	0	0	0	1	0	11	0	0	0	0	**50**	**50**
Mannar	1	74	0	6	0	1	0	5	0	2	0	8	0	16	0	0	0	0	0	7	0	0	0	0	**80**	**20**
Vavuniya	3	77	0	10	0	6	2	41	0	4	0	12	0	12	0	1	0	2	1	33	1	6	0	2	**50**	**50**
Mullaitivu	2	85	0	11	0	2	0	5	0	1	0	3	0	7	0	2	0	0	0	2	0	3	0	4	**60**	**40**
Batticaloa	23	1176	3	134	0	4	0	12	0	123	0	8	0	2	0	0	0	0	0	23	3	15	0	0	**86**	**14**
Ampara	1	27	0	25	0	1	0	1	0	4	0	10	1	1	0	2	0	0	3	123	1	5	1	1	**71**	**29**
Trincomalee	8	437	1	24	0	0	0	17	1	32	0	11	0	11	0	7	0	1	2	45	0	3	0	1	**75**	**25**
Kurunegala	13	763	1	82	0	2	0	3	0	13	6	141	1	17	2	28	0	3	4	231	2	20	3	53	**85**	**15**
Puttalam	5	430	2	23	0	4	0	3	0	6	1	24	0	10	0	1	0	0	0	29	0	15	0	2	**69**	**31**
Anuradhapura	4	261	3	43	0	1	0	2	0	49	6	161	1	16	0	8	1	1	0	107	1	17	6	146	**74**	**26**
Polonnaruwa	1	126	0	26	0	2	0	7	0	3	3	45	0	1	0	3	0	0	3	74	0	13	1	49	**43**	**57**
Badulla	3	341	2	78	1	4	0	4	0	7	0	34	4	60	4	97	0	2	5	106	3	45	0	6	**71**	**29**
Monaragala	3	107	3	60	0	2	1	13	0	2	1	121	0	44	0	39	0	1	3	48	0	7	1	13	**100**	**0**
Ratnapura	11	515	5	143	0	5	0	25	0	1	5	153	1	36	2	131	0	0	1	63	2	25	0	4	**78**	**22**
Kegalle	5	296	1	37	0	7	1	45	0	5	7	171	0	29	0	57	0	0	4	123	0	29	0	0	**82**	**18**
Kalmunei	0	393	3	67	0	1	0	1	0	30	0	3	0	0	0	0	0	0	0	66	0	7	0	0	**77**	**23**
SRILANKA	**260**	**15171**	**56**	**1664**	**1**	**76**	**7**	**458**	**4**	**606**	**62**	**1809**	**14**	**943**	**15**	**685**	**1**	**17**	**58**	**2273**	**15**	**360**	**25**	**480**	**80**	**20**

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 05th June , 2015 Total number of reporting units 337 Number of reporting units data provided for the current week: 273 C**-Completeness

Table 2: Vaccine-Preventable Diseases & AFP

30th – 05th June 2015 (23rd Week)

Disease	No. of Cases by Province									Number of cases during current week in 2015	Number of cases during same week in 2014	Total number of cases to date in 2015	Total number of cases to date in 2014	Difference between the number of cases to date in 2014& 2015
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	01	00	00	00	00	00	00	00	00	01	01	30	42	-28.5%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	%
Mumps	00	02	00	00	03	02	00	01	02	10	06	183	329	-44.3%
Measles	23	06	06	03	01	03	02	04	04	52	30	1112	1855	-0.4%
Rubella	00	00	00	01	00	00	00	00	00	01	01	06	13	-54.1%
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	03	-100%
Tetanus	00	00	00	00	00	00	00	00	00	00	00	07	08	-12.5%
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	%
Japanese Encephalitis	00	00	00	00	00	00	00	00	00	00	01	07	18	-61.1%
Whooping Cough	01	00	00	00	00	01	00	00	01	3	00	37	26	+42.3%
Tuberculosis	73	02	03	00	09	01	00	09	03	100	265	4156	4437	-6.3%

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

AFP and all clinically confirmed Vaccine Preventable Diseases except Tuberculosis and Mumps should be investigated by the MOH

Dengue Prevention and Control Health Messages

Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them

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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

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