WEEKLY EPIDEMIOLOGICAL REPORT

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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

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Leishmaniasis Part III

Clinical manifestation

Leishmaniasis has a wide spectrum of clinical features. It varies according to the causative species and host factors. There are 3 main clinical forms of the disease in human i.e.

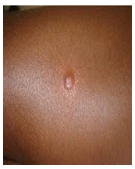
- Cutaneous leishmaniasis (CL) – This is the commonest form of leishmaniasis. It starts with the appearance of a small papule in the skin following 2 weeks to several months of a sand fly bite which is then developed into a nodular lesion that may enlarge and may become a chronic ulcer. Skin ulcers may be covered by a crust. The lesions usually develop in exposed areas of the body such as face, neck, arms and legs though it can appear in any part of the body where the bite of the sand fly occurred. The lesions can be multiple or single. They are usually painless and may take 3 -18 months to heal in most of the cases.

- Mucosal leishmaniasis (ML) – This is a less common situation. Some types of the parasite might spread to the mucosal tissues following initial sand fly bites on the skin and cause sores in the mucous membranes of the nose, mouth or throat.

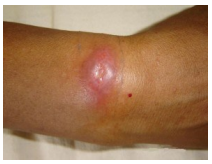
- Visceral leishmaniasis (VL) – This is also known as Kala-azar. The illness typically develops within months of the sand fly bite. However, the incubation period can be as long as several years. Clinical features include simple continuous fever, weight loss, fatigue, anaemia and splenomegaly and involvement of bone marrow. This potentially fatal if untreated.

The people, who live in endemic areas or history of recent travel to endemic areas, Occupational and other outdoor activities are important epidemiological risk factors when suspecting leishmaniasis.

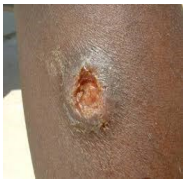
Papule in the arm

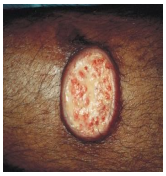


Nodule with ulceration in the centre



Ulcers with raised edges and depresed centre





Diagnosis

Diagnosis of cutaneous leishmaniasis is based on the history including travel history to endemic areas and clinical appearance of the lesion. The diagnosis can be confirmed by identifying the parasite on smear (tissue impression, slit skin smear, needle aspirate) and histopathology. Culture and PCR also can be used to confirm the diagnosis and to identify the species of Leishmania.

In addition, serological tests are also available and can be used for confirmation of the diagnosis of visceral leishmaniasis.

Treatment

All the clinically or laboratory-confirmed leishmaniasis patients should be provided with adequate treatment as early as possible. The adequate treatment of cutaneous Leishmaniosis will reduce the size of the scar and disfiguration (leaving an ugly scar) caused by it. The decision on treatment is taken by a dermatologist following a complete evaluation of the clinical picture and other important factors. Therefore it is nec-

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essary that the patients with suspected lesions should seek advice from or refer to the nearest health institution/ dermatology clinic.

There are several treatment options available. The commonly used methods are cryotherapy, injection of Sodium stibogluconate and application of hypertonic sodium chloride solution to the lesion. Most of these treatment options are painful and include several sessions. Therefore, in order to ensure the compliance, it is essential to counsel the patients and follow them up until complete cure.

Prevention and control

- Early diagnosis and treatment are very important in controlling leishmaniasis. Therefore all medical officers should be able to identify patients with suspected leishmaniasis and refer them to a dermatology clinic / dermatologist early for management in case of cutaneous & mucosal leishmaniasis. In the case of visceral leishmaniasis although it is very rare suspected patients should be referred to the physician/ paediatrician for further investigations and management.
- The standard case definition for leishmaniosis is as follows:
- "An illness with one or more localized skin lesions (nodules, papules or ulcers) that commonly appear on the exposed areas of the body (face, neck, arms, legs) or rare involvement of viscera (liver, spleen) or the mucosal tissue in mouth /nose".

- Notification is mandatory for any form of leishmaniasis. All the suspected or confirmed cases of leishmaniasis should be notified at earliest to the Medical Officer of Health of the patient's residence by form Health 544 (Notification of a Communicable Diseases form). Medical Officer of Health should ensure that all the notified cases are properly documented in relevant registers and field investigations are carried out within 7 days of the receipt of notification by relevant Public Health Inspector (PHI). It is essential to follow up all the confirmed cases until a complete cure to ensure treatment compliance.

Screening of close contacts of leishmanial patients is very important for timely detection of Leishmania cases and to prevent the spread of the disease. All the household contacts of clinically or laboratory-confirmed patients of leishmaniasis should be screened for symptoms and signs by the area PHI. If any household suspected with leishmaniasis is encountered, they should be referred to the nearest health care institution without delay.

In order to control the spread of leishmaniasis, it is essential to adopt the integrated vector control approaches using chemical, environmental and personal protection methods.

Usage of chemical methods has a limited value in the prevention of leishmaniasis due to the diversity of microhabitats and difficulties in identification of breeding sites and should be used with caution. The decision on indoor residual spraying should be taken after careful evaluation of entomological findings and consultation with Regional Epidemiologist and Regional Malaria Officer or Regional Entomologist. There is no proven evidence for outdoor fogging as a preventive measure for leishmaniasis.

Regular cleaning of houses, plastering of floors and walls with a suitable plastering material, if there are any cracks or holes should be carried out in order to eliminate breeding places in houses. Windows should be kept open to allow sunlight and to improve air circulation within the premises. Animal shelters should be cleaned regularly and keep them dry as much as possible. The outer environment should be kept clean. The compound should be free of garbage, collected debris and unnecessary vegetation.

- It is important to avoid outdoor activities as much as possible, especially from dusk to dawn. Outdoor sleeping needs to be avoided. Protective clothing (long-sleeved shirts, ankle length pants) that cover the whole body should be worn when working outdoors or working in animal shelters.

- Application of insect repellent to uncovered skin and under the sleeves and pant legs when working outdoors is important to prevent from sand fly bites. Reapplication of repellants is necessary for regular intervals as they are effective only for 4-6 hours.
- Bed nets impregnated with pyrethroid-containing insecticides if available can be used to prevent sand fly bites. Normal bed nets do not prevent sand fly entry due to the very small size of the insects.

- The general public (Especially people living in endemic areas) should be made aware of the signs and symptoms, mode of spread and importance of timely treatment of leishmaniasis in order to improve health seeking behaviour. They should be made aware of the services available at health institutions for leishmaniasis. The knowledge of possible breeding sites of vector and its behavioural pattern will help them to take adequate preventive actions.

Compiled by
Dr. Nirupa Pallewatte
MD (Minsk), MSc, MD. (Colombo)
Consultant Epidemiologist

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Table 1: Selected notifiable diseases reported by Medical Officers of Health 23rd – 01st March 2019 (9th Week)

RDHS Division	Dengue Fever		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Chickenpox		Meningitis		Leishmania-sis		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	153	2170	2	12	0	1	0	3	0	7	4	29	1	7	0	3	0	0	13	89	1	12	0	2	**46**	**100**
Gampaha	108	1274	1	3	0	1	0	0	0	11	7	15	0	1	0	0	0	0	2	76	2	6	2	24	**55**	**95**
Kalutara	45	562	1	16	0	3	0	1	0	25	8	94	0	1	0	1	0	0	17	184	2	23	0	3	**65**	**84**
Kandy	39	556	2	12	1	3	0	0	0	4	0	20	0	18	0	1	0	1	7	50	3	11	0	6	**54**	**100**
Matale	24	140	0	9	0	1	0	0	0	0	1	18	0	0	0	2	0	1	0	18	0	3	0	67	**54**	**100**
NuwaraEliya	3	46	1	3	0	1	0	0	0	0	1	11	6	17	1	4	0	0	1	10	0	10	0	0	**20**	**100**
Galle	28	283	1	12	1	4	0	1	0	0	4	55	0	15	0	1	0	0	14	85	0	17	0	1	**61**	**99**
Hambantota	20	251	0	3	0	0	0	0	0	1	4	14	5	41	0	1	0	0	7	95	1	9	4	151	**70**	**100**
Matara	21	373	2	3	1	4	0	1	0	1	15	44	0	14	0	5	0	0	11	76	0	2	15	108	**61**	**100**
Jaffna	56	1410	4	34	0	2	0	3	0	1	1	18	15	209	0	0	0	0	8	56	0	5	0	0	**21**	**93**
Kilinochchi	5	62	0	4	0	1	2	6	0	0	1	13	2	11	0	1	0	0	0	2	1	2	0	4	**42**	**100**
Mannar	0	41	0	0	0	0	0	7	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	**53**	**84**
Vavuniya	12	97	1	2	1	2	0	13	0	2	1	18	0	3	0	0	0	0	1	18	1	4	0	1	**42**	**100**
Mullaitivu	0	51	0	4	0	0	0	2	0	0	1	8	0	3	0	0	0	0	0	0	0	1	0	1	**41**	**81**
Batticaloa	44	430	3	25	0	0	1	6	1	1	2	9	0	0	0	0	0	1	3	32	1	3	0	0	**54**	**100**
Ampara	9	52	0	9	0	0	0	0	1	1	1	11	0	0	0	4	0	0	4	39	1	2	0	2	**48**	**100**
Trincomalee	18	270	1	1	0	0	0	0	0	0	1	1	0	2	0	0	0	0	8	39	0	1	0	0	**31**	**81**
Kurunegala	22	374	0	14	0	5	0	3	1	3	4	47	0	8	1	10	0	0	14	141	0	11	16	179	**57**	**98**
Puttalam	14	154	0	7	0	0	0	1	0	0	1	8	0	5	0	0	0	0	3	37	2	5	0	3	**56**	**100**
Anuradhapura	16	133	1	6	0	5	1	1	0	0	2	53	2	14	0	5	0	0	13	126	2	23	2	94	**38**	**99**
Polonnaruwa	10	68	0	6	0	1	0	0	0	0	3	27	0	1	0	2	0	0	19	76	0	7	7	46	**57**	**100**
Badulla	10	157	1	11	0	1	1	4	1	55	3	48	2	21	2	6	0	0	8	56	4	39	3	6	**64**	**99**
Monaragala	9	107	1	12	0	1	0	0	0	72	3	58	1	30	1	13	0	0	4	43	3	31	0	7	**65**	**100**
Ratnapura	28	370	1	20	0	10	0	2	0	6	16	122	0	6	0	3	0	1	12	92	2	38	18	31	**45**	**99**
Kegalle	30	278	2	9	0	6	0	0	1	17	4	31	3	9	0	1	0	0	12	103	3	9	1	6	**55**	**100**
Kalmune	21	222	1	15	0	0	0	1	0	0	0	11	1	1	0	0	0	0	10	46	0	1	0	0	**58**	**100**
SRILANKA	**745**	**9931**	**26**	**252**	**4**	**52**	**5**	**55**	**5**	**207**	**88**	**783**	**38**	**440**	**5**	**63**	**0**	**4**	**191**	**1589**	**29**	**275**	**68**	**742**	**52**	**97**

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 01st March , 2019 Total number of reporting units 353 Number of reporting units data provided for the current week: 335 C**-Completeness

A = Cases reported during the current week. **B** = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

23rd – 01st Feb 2019 (9th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2019	Number of cases during same week in 2018	Total number of cases to date in 2019	Total number of cases to date in 2018	Difference between the number of cases to date in 2019 & 2018
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	01	01	00	00	00	01	00	00	00	03	01	19	10	90 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	01	00	01	00	01	00	01	01	01	06	06	66	49	34.6 %
Measles	01	00	00	00	00	00	00	00	00	01	02	34	19	78.9 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	00	04	-75 %
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Tetanus	00	00	00	00	00	00	00	00	01	01	01	04	06	- 33.3 %
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	01	02	11	- 81.8 %
Whooping Cough	01	00	00	00	00	00	01	00	01	03	00	16	07	128.5 %
Tuberculosis	133	13	27	03	09	49	12	00	21	267	87	1589	1300	22.2 %

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

NA = Not Available

Dengue Prevention and Control Health Messages

Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them free of water collection.

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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

Dr. S.A.R. Dissanayake
CHIEF EPIDEMIOLOGIST
EPIDEMIOLOGY UNIT
231, DE SARAM PLACE
COLOMBO 10