WEEKLY EPIDEMIOLOGICAL REPORT

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

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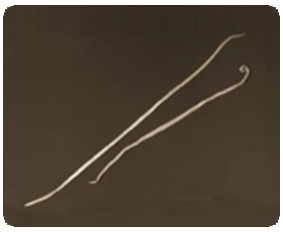
Soil-transmitted Helminthic infections Part II

This is the secound of two articles on Soil transmitted Helminthic infections.



Roundworm (Ascaris lumbricoides)
(Source https://www.cdc.gov/parasites/sth/index.html)

Whipworm (Trichuris trichiura)
(Source https://www.cdc.gov/parasites/sth/index.html)

Symptoms and signs

People infected with a light dose of helminths generally have no symptoms.

Soil-transmitted helminths impair the nutritional status of the people in several ways:

- The worms feed on host tissues, including blood, which leads to iron deficiency and loss of protein.
- Further, hookworms result in chronic intestinal blood loss which ultimately results in anaemia.
- The worms lead to malabsorption of nutrients and roundworm compete for vitamin A in the intestine.
- Some may suffer a loss of appetite leading to a reduction of nutritional intake and physical fitness.
- T. trichiura sometimes results in diarrhoea and dysentery.

Morbidity is related to the parasitic load. Humans with light intensity (few worms) of parasitic load usually do not suffer from the infection. Those with heavier infections cause symptoms such as diarrhoea, abdominal pain, malnutrition, general malaise and weakness, and impaired growth and physical development.

Those with high parasitic load can get even intestinal obstruction that should be immediately treated surgically.

Control

Proven control measures are periodical deworming to eliminate infecting worms, health education to prevent re-infection, and improved sanitation to reduce soil contamination with infective eggs. Safe and

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effective medicines are available to control infection.

WHO strategy for control of Helminthic infections

A resolution (WHA54.19) urging endemic countries to start tackling worms, specifically schistosomiasis and soil-transmitted helminths was unanimously endorsed at the World Health Assembly in 2001. WHO estimates show that about 836 million children worldwide require preventive chemotherapy for soil-transmitted Helminthiases. In 2016 more than 517 million children in need of treatment received preventive chemotherapy for soil-transmitted Helminths, corresponding to 63% global coverage. In 2016, 38 countries have reached the World Health Assembly's target of treating at least 75% of school-aged children for the disease.

The strategy for control of soil-transmitted helminth infections is to control morbidity through the periodic treatment of at-risk people living in endemic areas.

People at risk are:

- preschool children
- school-age children
- women of reproductive age (including pregnant women in the second and third trimesters and breastfeeding women)
- adults in certain high-risk occupations such as tea-pickers or miners.

Further, WHO recommends periodic medicinal treatment (deworming) to all at-risk people living in endemic areas without an individual diagnosis. Once a year treatment is recommended when the baseline prevalence of soil-transmitted helminth infections in the community is over 20% and twice a year when the prevalence of soil-transmitted helminth infections in the community is over 50%. Further, measures suggested to be taken are hygiene education to reduce transmission and reinfection by encouraging healthy behaviours.

Periodical treatment aims to reduce and maintain the intensity of infection low, and to protect infected at-risk populations from morbidity.

Methods identified for deworming can be easily integrated with child health days or supplementation programmes for preschool children or integrated with school health programmes.

WHO published an updated, evidence-informed guideline on the regular large-scale treatment of people against intestinal worms (soil-transmitted helminths), in 2017. The guideline endorses the current practice in areas endemic for the three main worm species that cause the disease.

Recommended Medicine by WHO:

Albendazole (400 mg)

Mebendazole (500 mg)

These medicines are effective, inexpensive and easy to administer by non-medical personnel. They have been through extensive safety testing and have been used in millions of people with few and minor side-effects.

Global target

The global target is to eliminate morbidity due to soil-transmitted helminthiases in children by 2020. To reach this target it is necessary to treat at least 75% of the children in endemic areas regularly (an estimated 836 million in 2016).

Sources:

https://www.who.int/gho/neglected_diseases/soil_transmitted_helminthiases/en/ https://www.who.int/en/news-room/fact-sheets/detail/soil-transmitted-helminth-infections

https://www.cdc.gov/parasites/sth/index.html

Further Readings

Sri Lankan Guideline in Deworming

Please refer Ref: General Circular No. 01-58/2018 on Guidelines on De-worming Children and Pregnant Women against Soil-Transmitted Helminths in Community Setting 2019 – 2022 of the Ministry of Health

(Source:http://fhb.health.gov.lk/images/FHB%20resources/School%20Health/circular/Micronutrients%20Supplementation%20Circular%20%202019%20-%20English.pdf

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Table 1: Selected notifiable diseases reported by Medical Officers of Health 16th – 22nd Nov 2019 (47th 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	832	16642	1	56	0	13	1	24	3	67	10	250	0	12	0	11	0	0	7	428	0	48	2	6	**49**	**100**
Gampaha	675	13293	0	46	0	9	0	4	3	32	7	138	0	5	0	10	0	2	8	414	0	29	0	166	**48**	**99**
Kalutara	230	7203	1	73	0	7	1	22	0	68	26	588	1	8	1	6	0	2	11	646	0	103	0	3	**63**	**100**
Kandy	476	6947	0	97	0	13	1	5	0	31	4	92	0	89	0	6	0	3	2	266	1	65	2	49	**65**	**100**
Matale	260	1435	0	28	0	4	0	1	0	6	3	48	0	6	0	9	0	2	1	87	0	5	5	264	**59**	**100**
NuwaraEliya	28	326	0	99	0	2	0	10	0	11	7	59	3	80	0	9	0	0	6	143	0	59	0	1	**28**	**100**
Galle	211	6310	1	53	0	7	0	3	0	7	13	456	2	53	2	50	0	2	9	436	1	53	0	5	**61**	**99**
Hambantota	69	1794	0	37	1	5	0	4	0	12	32	191	2	131	0	4	0	1	9	291	2	44	9	734	**73**	**100**
Matara	124	3611	1	38	0	4	0	7	0	20	25	473	1	44	0	21	0	1	7	313	1	17	23	569	**60**	**100**
Jaffna	581	4567	10	371	0	13	1	37	0	110	1	37	18	428	0	6	0	1	1	274	1	23	0	0	**21**	**93**
Kilinochchi	36	227	8	100	0	2	0	15	0	12	0	19	0	29	0	1	0	0	2	11	0	8	1	15	**52**	**100**
Mannar	5	129	0	5	0	2	4	13	0	1	0	1	1	9	0	0	0	0	0	1	2	7	0	1	**54**	**100**
Vavuniya	79	497	1	37	1	12	0	29	0	23	1	56	0	5	0	0	0	0	0	84	0	12	0	4	**59**	**100**
Mullaitivu	15	182	1	21	0	1	0	13	0	5	0	27	0	8	0	0	0	0	0	16	0	7	0	6	**29**	**100**
Batticaloa	113	1686	20	230	0	2	0	13	0	43	0	49	0	1	0	0	0	1	8	265	1	30	0	0	**51**	**100**
Ampara	7	292	1	80	1	4	0	0	0	17	3	54	0	2	0	11	0	0	7	310	1	23	0	4	**58**	**100**
Trincomalee	150	1403	5	48	0	0	0	0	0	63	3	23	0	20	0	5	0	1	3	236	1	11	0	5	**34**	**99**
Kurunegala	154	2441	2	76	0	23	0	6	0	30	49	292	1	30	1	24	0	4	14	579	1	95	17	767	**61**	**100**
Puttalam	123	1645	0	33	0	4	0	1	0	19	8	47	0	16	0	3	0	0	1	131	1	51	0	9	**62**	**100**
Anuradhapura	34	801	2	57	1	12	0	5	0	13	14	151	3	37	0	25	0	2	4	481	0	90	3	521	**44**	**99**
Polonnaruwa	29	424	0	30	0	3	0	3	0	5	3	79	0	4	0	17	0	2	2	297	1	25	9	291	**60**	**99**
Badulla	115	1371	0	89	2	12	0	10	0	89	8	224	5	130	0	23	0	0	5	328	0	165	1	16	**63**	**100**
Monaragala	0	333	0	36	0	4	0	0	0	79	0	189	0	82	0	41	0	0	0	212	0	112	0	22	**60**	**66**
Ratnapura	135	3487	3	112	2	39	0	10	1	23	43	1037	4	47	3	36	0	4	11	411	2	158	3	169	**48**	**100**
Kegalle	114	2245	0	39	0	18	0	2	0	28	18	277	3	58	1	95	0	0	8	467	2	54	1	57	**69**	**100**
Kalmune	96	940	2	104	1	2	0	1	0	64	1	34	0	3	0	4	0	0	10	247	0	27	0	0	**62**	**100**
SRILANKA	**4691**	**80231**	**59**	**1995**	**9**	**217**	**8**	**238**	**7**	**878**	**27**	**4891**	**44**	**1337**	**8**	**417**	**0**	**28**	**136**	**7374**	**18**	**1321**	**76**	**3684**	**55**	**98**

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 22 nd November , 2019 Total number of reporting units 353 Number of reporting units data provided for the current week: 327 C**-Completeness

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

Table 2: Vaccine-Preventable Diseases & AFP

16th – 22nd Nov 2019 (47th 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*	02	01	00	00	00	00	00	00	00	03	00	77	60	28.3 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	00	00	00	00	00	00	00	01	00	01	08	295	331	- 10.8 %
Measles	00	01	01	00	00	00	00	00	02	04	02	276	112	146.4 %
Rubella	00	00	00	00	00	00	00	00	00	00	03	00	08	0 %
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Tetanus	01	00	00	00	00	00	00	00	00	01	01	19	19	0 %
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	09	25	- 64 %
Whooping Cough	00	00	00	01	00	00	00	00	00	01	01	38	47	- 19.1 %
Tuberculosis	14	10	16	04	02	25	15	08	17	111	269	7609	7996	- 4.8 %

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

Number of Malaria Cases Up to End of November 2019,

02

All are Imported!!!

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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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