



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health

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

Vol. 42 No. 34

15th August 21st 2015

Scabies

Human scabies is a parasitic infestation caused by *Sarcoptes scabiei* var. *hominis*. The mite, barely visible to the naked eye, burrows into the epidermis and lays eggs, triggering a host immune response that leads to intense itching in response to just a few mites. Scabies infestation is frequently complicated by bacterial infection, leading to the development of skin sores that, in turn, can cause more serious consequences such as septicemia, heart disease and chronic kidney disease.

Disease burden

Scabies is one of the commonest dermatological conditions, accounting for a substantial proportion of skin disease in developing countries. Globally, it affects more than 130 million people at any time. Rates of scabies occurrence vary in the recent literature from 0.3% to 46%. In the developed world, outbreaks in health institutions and vulnerable communities contribute to significant economic cost in national health services. However, in resource-poor tropical settings, the sheer burden of scabies infestation, as well as their complications, imposes a major cost on health-care systems. In 2010, it was estimated that the direct effects of scabies infestation on the skin alone led to more than 1.5 million YLDS (years lived with disability), and the indirect effects of complications on renal and cardiovascular function are far greater.

Distribution

Scabies affects people from every country. However, it is the most vulnerable, young children and the elderly in resource-poor communities who are especially susceptible to scabies as well as to the secondary complications of infestation. The highest rates occur in countries with hot, tropical climates, where infestation is endemic, especially in communities where overcrowding and poverty coexist.

Pathology and sequelae

Scabies mites burrow into the top layer of the skin where the adult female lays eggs. After 4–6 weeks, the patient develops an allergic reaction to the presence of mite proteins and faeces, causing an intense itch. Scratching can lead to inoculation of the skin with bacteria (particularly *Staphylococcus aureus* and *Streptococcus pyogenes*), leading to the development of impetigo (skin sores), especially in the tropics. Impetigo can, in turn, be complicated by deeper skin infection such as abscesses, as well as serious invasive disease and sepsis in infants. In tropical settings, scabies-associated skin infection is a common risk factor for immune-mediated complications such as acute post-streptococcal glomerulonephritis (kidney disease) and possibly rheumatic heart disease. Evidence of renal damage can be found in up to 10% of children with infected scabies in resource

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-poor settings and, in many, this persists for years following infection contributing to permanent kidney damage. Recurrent infestations are common.

Diagnosis

Diagnosis of scabies is based on clinical recognition of the typical features. These comprise an itchy patient with linear burrows and vesicles around the wrists and especially finger webs, on the soles of the feet and ankles and sometimes on the head in infants. Prolonged itching leads to the development of scabies nodules, which in adults are often found on the genital area, especially the penis and scrotum as well in areas around the breast. Additionally, asymptomatic family members may also have burrows in the finger webs. Itching occurs only if the individual reacts to the presence of the mite.

An uncommon but important clinical variant is “crusted scabies”. This condition occurs particularly in some immuno-suppressed patients, including those with HIV/AIDS, and is characterized by hyper-infestation with millions of mites, producing widespread scale and crust, often without significant itching. Patients with crusted scabies are important to identify as they are a significant source of reinfection to the rest of the surrounding community.

Management

Primary management of affected individuals involves application of a topical scabicide such as permethrin 5% (caution in children aged under 6 months), 5% malathion in aqueous base, 10–25% benzyl benzoate emulsion or 5–10% sulphur ointment applied all over the body. In addition, there is increasing interest in the use of oral ivermectin (safety in pregnant women or children under 15 kg body weight has not been established). Best results are obtained by treating the whole household at the same time.

Secondary management involves prompt treatment of the complications of scabies, such as impetigo using appropriate antibiotics or antiseptics.

Control and elimination

Population control of scabies and its complications has been identified by some countries as a public health priority and an International Alliance for the Control of Scabies (IACS) is now working as a global network committed to this goal. Treatment of individuals with scabies and their contacts is unlikely to achieve this goal, and so there is increasing interest in implementing a mass drug administration (MDA) strategy. Large studies of MDA

using oral ivermectin versus topical treatment are underway. An important aspect of control and elimination programmes is their integration into existing clinical and public health programmes and systems.

Source

Scabies, available at http://www.who.int/neglected_diseases/diseases/scabies/en/

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

**Table 1 : Water Quality Surveillance
Number of microbiological water samples July/ 2015**

District	MOH areas	No: Expected *	No: Received
Colombo	12	72	90
Gampaha	15	90	NR
Kalutara	12	72	NR
Kalutara NIHS	2	12	NR
Kandy	23	138	NR
Matale	12	72	NR
Nuwara Eliya	13	78	NR
Galle	19	114	NR
Matara	17	102	9
Hambantota	12	72	54
Jaffna	11	66	33
Kilinochchi	4	24	67
Manner	5	30	31
Vavuniya	4	24	74
Mullatvu	4	24	18
Batticaloa	14	84	0
Ampara	7	42	57
Trincomalee	11	66	NR
Kurunegala	23	138	117
Puttalam	9	54	NR
Anuradhapura	19	114	44
Polonnaruwa	7	42	NR
Badulla	15	90	146
Moneragala	11	66	88
Rathnapura	18	108	63
Kegalle	11	66	93
Kalmunai	13	78	0

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

Table 1: Selected notifiable diseases reported by Medical Officers of Health 08th - 14th Augu 2015 (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	117	5964	4	133	1	8	3	69	1	98	5	192	0	8	0	25	0	3	7	322	0	27	0	0	75	25
Gampaha	31	2613	0	62	0	5	0	24	0	25	1	252	0	8	2	99	0	0	6	161	0	16	0	2	53	47
Kalutara	15	957	1	71	0	4	0	29	0	72	4	212	0	3	1	21	0	2	7	206	1	36	0	0	77	23
Kandy	7	794	0	81	0	6	1	24	0	32	0	80	1	47	0	107	0	0	3	159	0	12	0	10	74	26
Matale	0	336	3	35	0	0	0	7	0	5	0	47	0	8	1	25	0	0	0	19	0	10	0	13	77	23
NuwaraEliya	0	115	7	252	0	3	0	15	0	7	1	26	1	47	0	43	0	0	1	93	1	39	1	1	92	8
Galle	12	489	2	53	0	3	0	6	0	19	2	159	3	50	0	7	0	0	3	181	0	34	0	2	65	35
Hambantota	1	209	0	23	0	1	0	8	0	24	0	65	2	36	0	26	0	0	4	85	0	10	5	207	42	58
Matara	3	267	1	49	0	6	0	4	0	44	2	109	2	24	3	24	0	0	3	176	0	16	0	83	100	0
Jaffna	11	1218	23	560	0	9	0	157	2	62	0	14	2	537	0	10	0	2	1	163	0	14	0	0	92	8
Kilinochchi	0	51	1	64	0	0	0	10	0	31	0	1	0	21	0	0	0	1	0	15	0	0	0	0	50	50
Mannar	1	77	1	9	0	1	0	5	0	3	0	8	0	20	0	0	0	0	0	7	0	0	0	1	60	40
Vavuniya	0	90	2	16	0	6	2	56	1	7	0	17	0	13	0	1	0	2	0	36	0	11	0	4	100	0
Mullaitivu	0	108	1	23	0	2	0	11	0	1	1	5	0	9	0	3	1	1	1	5	0	3	0	5	80	20
Batticaloa	2	1313	6	219	0	6	1	23	2	139	1	11	0	2	0	10	0	1	1	39	0	16	0	0	50	50
Ampara	1	39	0	34	0	1	0	1	0	10	0	10	0	1	0	3	0	0	2	163	0	5	0	3	29	71
Trincomalee	4	507	0	40	0	0	1	28	0	35	0	14	1	18	0	7	0	1	1	69	0	6	0	2	67	33
Kurunegala	8	922	3	122	0	2	1	5	0	13	2	197	1	24	1	32	0	6	1	299	1	27	3	86	67	33
Puttalam	1	536	0	35	0	4	0	6	0	6	0	24	0	17	0	1	0	0	0	37	0	23	0	2	46	54
Anuradhapura	3	296	3	55	0	1	0	3	0	55	3	178	0	19	0	11	0	1	1	130	0	23	8	226	63	37
Polonnaruwa	1	134	0	29	0	3	0	7	0	3	1	50	0	1	0	4	0	0	1	93	0	18	1	61	29	71
Badulla	5	408	0	143	1	6	0	8	3	12	0	50	1	81	0	142	0	2	2	141	4	60	0	6	59	41
Monaragala	6	147	0	84	0	3	0	14	0	3	0	134	2	56	1	85	0	1	4	74	1	17	2	24	91	9
Ratnapura	6	712	4	212	1	12	0	37	0	8	2	230	0	49	0	152	1	1	2	91	0	41	0	15	61	39
Kegalle	11	401	1	52	0	8	1	56	0	9	9	220	1	35	1	69	0	0	9	157	2	37	0	0	100	0
Kalmunei	1	436	1	92	0	1	0	1	0	43	0	7	0	0	0	1	0	0	0	86	0	9	0	0	38	62
SRILANKA	247	19139	64	2548	3	101	10	614	9	766	34	2312	17	1134	10	908	2	24	60	3007	10	510	20	753	67	33

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 14th August, 2015 Total number of reporting units 337 Number of reporting units data provided for the current week. 230 C**_Completeness
A = Cases reported during the current week. B = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

08th - 14th Augu 2015 (33rd 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	02	00	03	03	48	56	-14.2%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	00	00	03	00	00	01	00	01	01	06	09	250	477	-48.1%
Measles	30	05	05	01	01	02	00	07	05	56	55	1845	2433	-24.1%
Rubella	00	00	00	00	00	00	00	00	00	00	00	07	14	-50%
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	04	-100%
Tetanus	00	00	00	00	01	00	00	00	00	01	00	13	10	+30%
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	07	20	-65%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	01	57	34	+67.6%
Tuberculosis	141	19	12	13	07	32	14	07	64	291	165	6429	6138	+4.7%

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

Influenza Surveillance in Sentinel Hospitals - ILI & SARI								
Month	Human					Animal		
	No Received	ILI	SARI	Infl A	Infl B	Pooled samples	Serum Samples	Positives
July	4074	Not Performed	Clinical	140	23	642	155	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