week no. 22 ending June 1, 1984

Texas Preventable Disease NEWS

contents:

BUREAU OF EPIDEMIOLOGY 1100 West 49th Street, Austin, Texas 78756 (512-458-7207)

PARASITIC INFECTIONS

Parasitic infections are highly endemic in populations of developing countries throughout the tropical and sub-tropical areas of the world and frequently occur in highly developed countries when environmental sanitation is compromised. The large roundworm, Ascaris lumbricoides, is believed to infect approximately one of every four persons in the world today.[1] The hookworms, Ancylostoma duodenale and Necator americanus, are thought to infect 400 million persons worldwide, and the whipworm, Trichuris trichiura, is thought to infect 350 million people.[1]

Although health professionals in Texas may encounter, in all areas of the health care delivery system, individuals infected with parasites, certain populations are considered to be at higher risk. These include male homosexuals (seen frequently at Sexually Transmitted Disease clinics), immigrants from highly endemic areas of the world (for example, southeast Asian refugees), institutionalized persons (such as those in schools for the mentally retarded), children in day-care centers, and residents of households exhibiting poor environmental sanitation. Many cases of parasitic infection may remain asymptomatic for an extended period of time. These infections often go undetected and serve as potential reservoirs for infection of those in close contact with them. In the absence of effective medical treatment, persons with chronic parasitic infections may experience needless suffering, long-term disability, and possibly death.

Parasitic infections such as giardiasis and amebiasis are transmitted by way of the fecal-oral route, either through contact with infected individuals or through ingestion of food or water contaminated with the feces of infected individuals. Other infections are contracted by exposure to infected soil (hookworm) or arthropod vectors (malaria, Chagas' disease). The transmission of certain parasitic infections is limited by climate and geography. Hookworm, for example, requires warm, moist conditions for development of the infective larvae in soil. For this reason, hookworm transmission in Texas is essentially limited to the southeast corner of the state, especially Jasper, Hardin, and Newton counties.

Because of recent increases in the prevalence of parasitic infections, there is an increasing need for health professionals to be able to recognize the various manifestations of these infections in order to determine the source of infection and mode of transmission and, thus, provide effective medical intervention.

The Medical Parasitology Unit of the Bureau of Laboratories, TDH, examined 2,435 fecal specimens for parasites during 1983. Of these, 893 (36.7%) were positive with one or more intestinal parasite. As in previous years, Giardia lamblia, the flagellated protozoan, was the most often diagnosed of the parasites considered to be pathogenic in man (226 positive stools or 9.3%). Table 1 provides data on other parasites diagnosed during 1983. These figures probably do not reflect accurately the prevalence of parasitic infections in Texas since many specimens are submitted

either for confirmation of suspected infection or as a survey of known high risk populations such as the residents of schools for the mentally retarded. They do, however, suggest that parasitic infections in Texas are not at all uncommon.

The Medical Parasitology Unit provides reference parasitology services to physicians and clinical laboratories and routine parasitology services to public health agencies. Information concerning the submission of specimens is available from the General Parasitology Branch office -- (512) 458-7605 or 458-7560 (STS 824-9605 or 824-9560).

Consultative services for physicians regarding the diagnosis and treatment of parasitic diseases are available upon request from the Bureau of Epidemiology -- (512) 458-7328 (STS 824-9328). Essential anti-parasitic agents which have been difficult to obtain in the past are now being provided by the CDC Parasitic Drug Service. For further information, contact your local health authority, public health regional office, or the Texas Department of Health.

This report was prepared by Dale Dingley, MPH, Chief of the Medical Parasitology Unit, Bureau of Laboratories, Texas Department of Health.

REFERENCE:

1. Schultz MG. Current concepts in parasitology, N Eng J Med 1977;297;1259-61.

Table 1.

Stool Specimens Examined for Parasites by the TDH Laboratory, 1983

ORGANISM	Jan - Mar		Apr - Jun		Jul - Sep		Oct - Dec		TOTAL	
	#	%	#	%	#	%	#	%	#	%
Entamoeba histolytica[1]	34	5.8	50	6.8	24	3.8	26	5.5	134	5.5
Entamoeba hartmanni	53	9.0	73	9.9	47	7.4	49	10.3	222	9.1
Entamoeba coli	66	11.2	68	9.3	47	7.4	54	11.4	235	9.7
Endolimax nana	100	17.0	107	14.6	66	10.4	67	14.1	340	14.0
Iodamoeba butschlii	18	3.1	3	0.4	3	0.5	6	1.3	30	1.2
Dientamoeba fragilis[1]	41	7.0	62	8.4	43	6.8	43	9.1	189	7.8
Giardia lamblia[1]	49	8.3	59	8.0	61	9.6	57	12.0	226	9.3
Chilomastix mesnili	13	2.2	18	2.5	4	0.7	10	2.1	45	1.9
Trichomonas hominis	0	0.0	3	0.4	4	0.7	1	0.2	8	0.3
Cryptosporidium sp.[1]	0	0.0	0	0.0	1	0.2	2	0.4	3	0.1
Hookworm[1]	10	1.7	1	0.1	3	0.5	2	0.4	16	0.6
Ascaris lumbricoides[1]	4	0.7	10	1.4	5	0.8	8	1.7	27	1.1
Strongyloides stercoralis[1]	2	0.3	4	0.5	2	0.4	0	0.0	8	0.3
Trichuris trichiura[1]	2	0.3	13	1.8	7	1.1	4	0.9	26	1.1
Enterobius vermicularis[1]	16	N/A[2]	15	N/A[2]	4	N/A[2]	7	N/A[2]	42	N/A[2]
Hymenolepis nana[1]	5	0.9	2	0.3	4	0.7	3	0.6	14	0.6
Taenia saginata[1]	0	0.0	1	0.1	0	0.0	1	0.2	2	0.1
Diphyllobothrium latum[1]	0	0.0	0	0.0	2	0.4	0	0.0	2	0.1
Clonorchis sinensis[1]	0	0.0	1	0.1	2	0.4	0	0.0	3	0.1
Schistosoma haemotobium[1]	1	0.1[3]	1	0.1[3]	0	0.0	0	0.0	2	0.1[3]
Macracanthorhynchus sp.[1]	9	N/A[4]	0	0.0	0	0.0	0	0.0	9	N/A[4]
Feces Specimens Tested	590		734		637		474		2435	
Negative Feces Specimens	348		471		431		291		1541(63.3)	

[1]Organism is considered to be pathogenic in man
[2]Includes eggs found in fecal specimens and on pinworm swabs
[3]Eggs found in urine specimen
[4]All worms were recovered from one patient

****** ANNOUCEMENT ******

Preparations for the publication entitled Reported Morbidity and Mortality in Texas - 1983 Annual Summary are now in the final stages, and the report is expected to be ready for distribution by August 1984.

This publication is an annual project of the Bureau of Epidemiology and contains the final figures on the reported incidence of notifiable diseases in Texas. Additional epidemiological descriptions of communicable disease activity in Texas, numerous illustrations (maps and graphs) of disease trends, and an overview of special surveillance activities conducted by the Bureau of Epidemiology are also provided. This report is further supplemented by epidemiologic data provided by the Bureau of Communicable Disease Services (Venereal Disease Control Division, Immunization Division, and Tuberculosis Services Division) and the Bureau of Veterinary Public Health (Zoonosis Control Division), and by mortality data provided by the Bureau of Vital Statistics (Statistical Services Division).

If you would like to receive a copy of this report, please complete the request form provided below and send it to the Bureau of Epidemiology, Texas Department of Health, 1100 West 49th Street, Austin, TX 78756-3180. ALL REQUESTS MUST BE RECEIVED BY JULY 2, 1984.

Please send 1 copy of Reported Morbidity and Mortality in Texas - 1983 Annual Summary to:

Name: _____

Title: _____

Agency: _____

Mailing Address: _____

_____

City: _____

State: _____ **Zip:** _____

REPORTABLE DISEASES IN TEXAS APRIL 1 - MAY 26, 1984

REPORTABLE DISEASE	PHR 1	PHR 2/12	PHR 3	PHR 4	PHR 5	PHR 6	PHR 7/10	PHR 8	PHR 9	PHR 11	REPORTED WEEKS 14 - 21 1983	REPORTED WEEKS 14 - 21 1984	CUMULATIVE 1983	CUMULATIVE 1984
AIDS	-	-	-	-	5	2	8	1	1	1	-	18	-	34
AMEBIASIS	-	-	-	-	13	9	3	7	2	2	31	36	157	105
ANTHRAX	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ASEPTIC MENINGITIS	1	-	-	1	9	2	2	4	4	11	42	34	92	80
BOTULISM	-	-	-	-	-	-	-	-	-	-	-	-	-	1
BRUCELLOSIS	-	-	-	-	-	-	-	-	-	-	12	-	13	4
CHICKENPOX	250	179	83	232	1,008	394	701	379	156	642	5,350	4,024	11,871	9,130
CHOLERA	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DIPHTHERIA	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ENCEPHALITIS	-	-	-	-	-	-	-	-	1	1	6	2	21	13
GONORRHEA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11,936	9,825	31,689	24,432
HANSEN'S DISEASE	-	-	-	-	-	-	-	-	-	-	8	-	11	3
HEPATITIS, VIRAL TYPE A	3	7	22	10	102	40	6	17	26	15	377	248	1,177	830
HEPATITIS, VIRAL TYPE B	7	2	9	5	51	15	9	11	9	18	174	136	448	454
HEPATITIS, VIRAL NON-A/NON-B	-	-	1	1	7	1	-	-	1	2	NA	13	NA	28
HEPATITIS, VIRAL UNSPECIFIED	2	2	4	1	142	11	14	39	3	8	362	226	867	686
INFLUENZA & FLU-LIKE ILLNESS	736	149	12	1,798	2,170	682	482	1,007	201	243	12,010	7,480	62,899	146,100
LEPTOSPIROSIS	-	-	-	-	-	-	-	-	-	-	-	-	-	1
MALARIA	-	-	-	-	2	1	-	-	-	6	17	9	22	16
MEASLES	-	53	-	13	50	-	-	4	-	1	2	121	34	283
MENINGOCOCCAL INFECTIONS	1	1	-	-	7	-	2	-	-	3	35	14	94	74
MUMPS	1	-	5	1	6	4	5	2	3	6	30	33	122	81
PERTUSSIS	-	-	-	-	-	-	-	-	-	-	2	-	18	1
PLAGUE	-	-	-	-	-	-	-	-	-	-	-	-	-	1
POLIOMYELITIS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSITTACOSIS	-	-	-	-	-	-	-	-	-	-	1	-	1	-
Q FEVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RABIES IN MAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELAPSING FEVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-
REYE SYNDROME	-	-	-	-	-	-	-	-	-	-	-	-	8	9
RHEUMATIC FEVER	-	-	-	2	-	-	-	1	-	-	4	3	8	5
ROCKY MOUNTAIN SPOTTED FEVER	-	-	-	-	4	-	1	-	-	-	13	5	15	11
RUBELLA	-	-	-	-	-	-	-	-	-	-	31	-	69	17
RUBELLA, CONGENITAL SYNDROME	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SALMONELLOSIS	3	2	15	2	22	14	2	9	11	27	177	107	475	385
SHIGELLOSIS	8	1	7	1	17	10	-	21	8	15	131	88	405	296
SMALLPOX	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STREP THROAT & SCARLET FEVER	130	406	27	893	1,569	585	696	516	471	380	6,065	5,675	19,763	18,459
SYPHILIS (P&S)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	983	705	2,592	1,915
TETANUS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TRICHINOSIS	-	-	-	-	-	-	-	-	-	-	1	-	1	1
TUBERCULOSIS	5	7	10	2	60	18	15	44	19	92	306	272	663	589
TULAREMIA	-	-	-	-	-	-	-	-	-	-	1	-	1	-
TYPHOID FEVER	-	-	-	-	-	-	-	1	-	1	6	2	8	8
TYPHUS FEVER	-	-	-	-	-	-	-	-	-	-	3	-	4	2
YELLOW FEVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*NA=NOT AVAILABLE

TEXAS POPULATION BY PUBLIC HEALTH REGION - 1984*

PHR	POPULATION	PHR	POPULATION	PHR	POPULATION
1	392,206	5	3,566,359	9	1,478,857
2/12	758,209	6	1,491,320	11	3,783,317
3	574,926	7/10	1,584,033		
4	687,431	8	1,462,583	TOTAL	15,779,240

*Texas Department of Health Population Data System

SUMMERTIME RASHES

A number of different rash illnesses occur every summer in Texas. Most summertime rash illnesses, particularly in children, are caused by heat, allergic reactions to plants such as poison ivy and oak, or by mild self-limited enteroviral infections. However, before calling it just another rash, always consider the more serious rash illnesses that require different therapies and different public health responses.

1. Rocky Mountain spotted fever, endemic in Texas, can cause a rash varying from macular to purpuric. The rash begins on the wrists and ankles, spreading centripetally to the trunk within hours.

2. Rubeola (measles) has not been eliminated in Texas (236 confirmed cases have occurred so far in 1984). The rash starts as faint macules on the upper lateral parts of the neck, along the hairline and on the posterior aspect of the cheeks. It becomes maculopapular, spreading rapidly over the entire face, neck, upper arms and upper part of chest within 24 hours, and ultimately involves the back, abdomen, entire arms, thighs, and feet.

3. The rash of rubella begins on the face and spreads quickly to the trunk. It may be confluent, particularly on the face, and is often associated with mild itching; desquamation is minimal. Exposure of unvaccinated pregnant women must be avoided.

4. Dengue can cause a measles-like rash. It has not been seen in Texas since 1980, but could move northward from Mexico during the summer.

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