December 2004 volume 20 number 12
Georgia Epidemiology Report

Delusory Parasitosis: Bugged by "Bugs"
Influenza Update

Delusory parasitosis is a real condition first described in the medical literature more than a century ago. Originally called "delusion of parasitosis", it was described as an emotional disorder in which the patient has an unwarranted belief that live organisms, such as mites or insects, are present on or in his body. It can be caused by many other medical ailments - heavy metal poisoning, exposure to toxins, diseases such as AIDS, anemia, carcinoma, diabetes, hyperthyroidism, lupus, lymphoma, and multiple sclerosis. Nutritional deficiencies, allergies, drug reactions, alcohol or drug withdrawal, menopause, niacin overdose, rheumatoid arthritis, stress and even vitamin overdoses are known to trigger the symptoms. People with delusory parasitosis are otherwise reasonable, are not usually phobic about insects, and come from a variety of socioeconomic and occupational backgrounds. They will report feeling something biting, stinging, or crawling inside their skin and will dig into the skin trying to find and dislodge whatever's causing it. Telling them that insects and parasites do not behave in this manner will have no effect on their beliefs. They will use harsh cleaning compounds, even pesticides and gasoline, on their skin to get rid of the "bugs" or "worms" crawling under their skin and infesting them. They may also bathe excessively. In nearly every case, there is a real reason for the sensations. However, rarely is the reason the one given, making this condition difficult to diagnose and even more difficult to deal with.

Common symptoms reported by sufferers of delusory parasitosis include:

- The feeling of bugs, worms, fibers, or mites biting, crawling, or burrowing into, under, or out of the skin.
- Being able to feel and see these "bugs" or "worms" even if no one else can. If someone else can see them, it is rarely a physician.
- Thinking their home or furniture is infested.
- The conviction that no one seems to believe the "bugs" or "fibers" exist except themselves, or maybe a friend, who is "also infested".
- Reporting to have seen many doctors, who either refuse to listen, refuse to see them, or refer them to someone else.
- Trying lots of different remedies, none of which worked at all or for long.
- Offering to show or send you the "bugs" or "fibers".
- Being convinced that the problem is spreading to family, family pets, and friends.
- Seeing whatever is causing their problem reported on the internet.

Diagnosing Delusory Parasitosis

The differential diagnosis of itchy bites in humans is complicated by the fact that some of the causes are relatively rare. The major alternatives to be considered are scabies, fleas, body lice, mosquitoes, sand flies, horse flies, spiders, centipedes, bed bugs, ticks, midges, bird mites, and harvest mites. Diagnosis requires information on the circumstances in which the bites occurred, and the nature and distribution of lesions. In difficult cases, an entomologist should be consulted.

Other factors may be responsible for bites of "unknown origin." There are literally hundreds of non-insect agents capable of causing itching and skin irritation. Household products most often implicated are phosphate detergents, soaps, cosmetics, ammonia-based cleaning agents, hair products, medications, printing inks, and certain types of clothing.

Environmental factors, both physical and chemical, can cause symptoms similar to bug bites. Tiny fragments of paper, fabric or insulation can pierce the skin, forming a "bite." They can also cause crawling sensations, which usually results in scratching and possibly a rash. Usually fragments affect body parts that are not covered by clothing such as hands, arms, neck and head. Static electricity can increase the attraction of tiny fragments to exposed skin, exacerbating the problem. Low humidity and electronic equipment can contribute to static electric-

The Georgia Epidemiology Report Via E-Mail

To better serve our readers, we would like to know if you would prefer to receive the GER by e-mail as a readable PDF file starting in 2004. If yes, please send your name and e-mail address to Gaepinfo@dhr.state.ga.us.

ity. Dry air alone can cause irritation, producing a condition known as "winter itch" that is often mistaken for insect or mite activity.

Indoor air pollution can cause dizziness, headaches, and eye, nose and throat irritation, conditions often blamed on an "insect bite." Some sources of air pollution are ammonia-based cleaning agents, formaldehyde emitted from wall and floor coverings, tobacco smoke, and solvents and resins contained in paints, glues and adhesives. Reactions to air-borne chemicals most often occur in buildings with inadequate ventilation. One must also consider stress, drug and alcohol abuse, and dry skin

Thorough testing, including a complete physical checkup, should lead to an accurate diagnosis and treatment for most sensations of infestation caused by metabolic disorders or other medical problems listed above. A referral to a dermatologist, allergy specialist, or infectious disease specialist may be considered to rule out a physical cause of the problem.

If necessary, medical specimens can be submitted by the physician to entomologists, parasitologists, or other biologists for verification or identification. These experts, who may be found at a university extension service or in public health departments, not only can identify or rule out various kinds of parasites that may be causing the condition, but they can also provide additional biological information that may greatly assist in arriving at a satisfactory diagnosis and treatment.

The literature on dealing with delusory parasitosis recommends reminding people that if professionals can't pinpoint an offending organism, it is very unlikely that all of them are wrong, and other avenues should be pursued. Stating it this way rarely works. Neither will suggesting that they might want to visit the mental health clinic. Sufferers are often reluctant to consult a psychiatrist, and if the suggestion to do so is not made carefully, the patient may seek help from another physician.

Treatment of Delusory Parasitosis

- Run appropriate diagnostic tests to rule out other medical conditions.
- Rule out true infestation.
- Take a good history to help rule out environmental causes.
- Rule out other organic causes such as allergies and contact dermatitis.
- Determine whether there is a history of drug abuse.
- Consider psychotherapy. Management of patients with delusory parasitosis is best handled through the cooperation of dermatalogists, psychiatrists, and entomologists or parasitologists. Psychiatrists are needed to confirm the diagnosis of delusory parasitosis and to diagnosis any underlying psychiatric disorders. In addition, psychiatrists are able to conduct psychotherapy and provide a long-tern commitment during the treatment phase.
- The drug most often mentioned in the literature as being effective for treating delusory parasitosis is the antipsychotic agent pimozide, which can provide significant relief of both itch and delusions.

People with delusory parasitosis often go from doctor to doctor seeking relief and confirmation of their suffering. Because patients are wary that a psychiatrist may challenge their delusions, they are likely to resist recommendations to seek psychiatric help. A physician might persuade such patients to see a psychiatrist by suggesting that a mental health professional could help them manage the emotional hardships created by their affliction.

This article was written by Rosmarie Kelly, Ph.D., M.P.H.

References:

http://delusion.ucdavis.edu/
http://edis.ifas.ufl.edu/BODY_MG343
http://www.medscape.com/viewarticle/417324
http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7443.html
http://www.entomology.ucr.edu/ebeling/ebel14.html
http://www.ahealthyme.com/topic/parasitosis

Hillert, A, et al. 2004. **Delusional Parasitosis.** *Dermatol Psychosom* 5:33–35

Hinkle, Nancy C. 2000. Delusory Parasitosis. A*merican Entomologist* 46 (1): 17-25.

Potter, Michael F. 1997. Invisible Itches: Insect and Non-Insect Causes. University of Kentucky Cooperative Extension Service. ENT-58.

Influenza Update

The Centers for Disease Control and Prevention (CDC) recently informed us that the injectable influenza vaccine, Fluvirin®, manufactured by Chiron Corporation, will not be available for distribution in the United States (U.S.) for the 2004-2005 influenza season. Chiron Corporation was to supply about half of the 100 million doses of influenza vaccine expected to be available. For this season, the U.S. will have available approximately 58 million doses of another injectable influenza vaccine, Fluzone®, manufactured by Aventis Pasteur, and approximately 3 million doses of a live, attenuated influenza vaccine (LAIV/Flumist®), manufactured by MedImmune.

Upon notice of the inactivated influenza vaccine shortage, the Advisory Committee on Immunization Practices (ACIP) and CDC issued interim recommendations on priority groups for vaccination this influenza season. The priority groups are:

- children ages 6 months to 23 months;
- people 65 years of age and older;
- adults and children 2–64 years of age and older with chronic lung or heart disorders including heart disease and asthma; chronic metabolic diseases (including diabetes); kidney diseases; blood disorders (such as sickle cell anemia); or weakened immune systems, including persons with HIV/AIDS;
- women who will be pregnant during the influenza season;
- residents of nursing homes and other chronic-care facilities;
- children and teenagers, 6 months to 18 years of age, who take aspirin daily;
- health-care workers who provide direct, hands-on care to patients; and
- household members and out-of-home caregivers of infants under the age of 6 months.

Individuals not in these priority groups are asked to forego influenza vaccination this season.

For health-care providers administering vaccine, please vaccinate only persons who fall into a priority group and ask that otherwise healthy individuals forego vaccination this season. Other steps the public can take to prevent influenza include frequent hand-washing, covering coughs and sneezes, avoiding contact with eyes, nose, and mouth, and staying away from school and work while ill. Respiratory etiquette materials are available for download at http://health.state.ga.us.

LAIV should be considered for healthy persons who are aged 5–49 years and are not pregnant, including health-care workers (except those who care for severely immunocompromised patients in special care units) and persons caring for children aged <6 months.

The Division of Public Health is currently working with local health officials and health-care providers to assess the vaccine supply in Georgia. We will facilitate redistribution of available vaccine to target the approximately 2.5 - 3 million Georgians who fall into one of these priority groups. However, the vast majority of influenza vaccine is purchased and administered privately, not in public health. Therefore, to ensure that vaccine reaches these priority groups, we are asking for your cooperation.

We ask that providers who have received vaccine contact their district health office (http://health.state.ga.us/regional/index.asp) to let us know that vaccine has been received. For providers that are looking for vaccine, please contact your district health office (http://health.state.ga.us/regional/index.asp) to let us know that vaccine is still needed. This voluntary communication is critical to help state and local public health officials determine:

- which facilities and providers have vaccine and
- where gaps in vaccine distribution exist so that we can allocate vaccine to areas it is still needed.

Georgia participates in the nationwide influenza surveillance network that is coordinated by CDC. Georgia surveillance data are available at http://health.state.ga.us/epi/flu/fluupd04.asp. National surveillance summaries are available at http://www.cdc.gov/flu/weekly/fluactivity.htm.

Thank you for your cooperation. Updated information is available from the Division of Public Health at http://health.state.ga.us and from CDC at http://www.cdc.gov/flu.

Division of Public Health
http://health.state.ga.us

Kathleen E. Toomey, M.D., M.P.H.
Director
State Health Officer

Epidemiology Branch
http://health.state.ga.us/epi

Paul A. Blake, M.D., M.P.H.
Director
State Epidemiologist

Mel Ralston
Public Health Advisor

Georgia Epidemiology Report Editorial Board

Carol A. Hoban, M.S., M.P.H. - Editor
Kathryn E. Arnold, M.D.
Paul A. Blake, M.D., M.P.H.
Susan Lance-Parker, D.V.M., Ph.D.
Kathleen E. Toomey, M.D., M.P.H.
Angela Alexander - Mailing List
Jimmy Clanton, Jr. - Graphic Designer

Georgia Department of Human Resources

Division of Public Health
Two Peachtree St., N.W.
Atlanta, GA 30303-3186
Phone: (404) 657-2588
Fax: (404) 657-7517

Please send comments to:
Gaepinfo@dhr.state.ga.us

The Georgia Epidemiology Report
Epidemiology Branch
Two Peachtree St., NW
Atlanta, GA 30303-3186

December 2004 **Volume 20 Number 12**

Reported Cases of Selected Notifiable Diseases in Georgia Profile* for September 2004

Selected Notifiable Diseases	Total Reported for September 2004	Previous 3 Months Total Ending September			Previous 12 Months Total Ending in September		
	2004	2002	2003	2004	2002	2003	2004
Campylobacteriosis	57	211	233	186	609	687	560
Chlamydia trachomatis	2440	9017	9432	8255	34375	36288	33360
Cryptosporidiosis	31	39	37	83	130	123	191
E. coli O157:H7	0	14	11	1	57	32	22
Giardiasis	58	306	274	220	905	873	813
Gonorrhea	1125	5224	4755	3784	18989	18117	15067
Haemophilus influenzae (invasive)	1	14	20	15	100	82	111
Hepatitis A (acute)	36	90	323	88	559	744	472
Hepatitis B (acute)	41	122	238	160	460	669	618
Legionellosis	0	6	12	10	15	36	39
Lyme Disease	0	2	1	3	5	10	13
Meningococcal Disease (invasive)	3	7	6	3	41	31	25
Mumps	1	0	2	1	3	3	1
Pertussis	2	11	10	5	27	33	27
Rubella	0	0	0	0	0	0	1
Salmonellosis	254	849	908	877	1895	1999	2052
Shigellosis	47	440	217	155	1532	1757	697
Syphilis - Primary	0	26	32	6	104	118	107
Syphilis - Secondary	4	96	98	32	311	436	366
Syphilis - Early Latent	4	190	165	28	746	769	362
Syphilis - Other**	13	192	200	71	782	850	563
Syphilis - Congenital	0	3	1	0	18	11	2
Tuberculosis	13	165	134	68	622	522	463

* The cumulative numbers in the above table reflect the date the disease was first diagnosed rather than the date the report was received at the state office, and therefore are subject to change over time due to late reporting. The 3 month delay in the disease profile for a given month is designed to minimize any changes that may occur. This method of summarizing data is expected to provide a better overall measure of disease trends and patterns in Georgia.

** Other syphilis includes latent (unknown duration), late latent, late with symptomatic manifestations, and neurosyphilis.

AIDS Profile Update

Report Period	Total Cases Reported*			Percent	Risk Group Distribution (%)						Race Distribution (%)		
	<13yrs	>=13yrs	Total	Female	MSM	IDU	MSM&IDU	HS	Blood	Unknown	White	Black	Other
Latest 12 Months: 12/03-11/04	9	1,711	1,720	27.5	33.5	6.3	2.2	13.7	1.7	42.5	22.2	75.1	2.8
Five Years Ago: 12/99-11/00	12	1,164	1,176	28.0	31.0	11.6	3.3	19.4	2.6	32.1	19.0	77.6	3.5
Cumulative: 07/81-11/04	229	28,572	28,801	19.0	45.8	16.2	5.1	14.4	1.9	16.6	32.4	65.0	2.6

MSM - Men having sex with men **IDU - Injection drug users** **HS - Heterosexual**

* Case totals are accumulated by date of report to the Epidemiology Section