

AGROMEDICINE PROGRAM UPDATE

MUSC DEPARTMENT OF FAMILY MEDICINE – DIVISION OF PUBLIC HEALTH AND PUBLIC SERVICE
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Previous issues are available at www.musc.edu/oem/apunews.html

PROGRAM NOTES

>I have just spent part of an evening enjoying reading an advance copy of Dr. Stan Schuman's new book Rainbows and Washtubs: Diagnostic Mysteries in Agromedicine. It is short (120 pages or so), but full of insights from his years as the founding medical director of the South Carolina Agromedicine Program and earlier in his career. It should be available soon from Haworth Medical Press. We will let you know when it is "in press!"

>Dr. John Freedy, Director of the Behavioral Science Curriculum for MUSC's Family Medicine Residency and Dr. Simpson have co-authored the lead article in the March 15, 2007 issue of the American Family Physician titled: "Disaster-Related Physical and Mental Health: a Role for the Family Physician." Call or email the office if you would like a copy.

>Dr. Ivar Frithsen will be joining our staff when he completes his fellowship at the end of June. He will

spend approximately 30% of his time working in Agromedicine. We look forward to having him join us on the faculty!

>We continue to enjoy and appreciate the opportunity to speak to groups around the state. Keep us in mind as you plan programs. Call for a list of potential topics or suggest a new one for us to prepare.

RECENT CONSULTS

>Our first consult of 2007 regarding tick bites came on April 3rd—a "Lone Star" tick noted on March 29th after the 20 year old caller reported being outside in relatively high grass on the evening of the 28th. A 2cm ring of erythema developed at the site of the bite and faded within 48 hours of removal of the unengorged tick, typical of the mild response to the protein content of tick saliva.

Amblyomma americanum or "Lone Star" ticks are known to be vectors for STARI, ehrlichiosis, Rocky Mountain Spotted Fever and tularemia. They rarely are found in cases of tick pa-

ralysis. The brief duration of attachment and absence of engorgement make transmission of any infectious agent unlikely.

Call for a copy of our hand-out on handling tick bites, or see: <http://www.musc.edu/oem/ticks.htm>

>Dr. Dieter's patient with a necrotic skin lesion continues to improve. The area of necrosis is now less than "dime" size, down from almost the entire back of the hand. Photographs of the lesion are still in process and are not available at this time.

Prior to the investigation of the site by Clemson Extension Service agents, the family had discharged an insecticide "bomb." "Sticky boards" have been placed to attempt to capture possible culprits! More details when they become available.

FROM THE LITERATURE

>The April 6, 2007 issue of the CDC's Morbidity and Mortality Weekly Report (MMWR) includes data from

the 2005 Census of **Fatal Occupational Injuries.**

U.S. workers, as a whole died from injury while at work at a rate of 4.0 per 100,000 workers. The National Occupational Research Agenda (NORA) classifies occupations in 8 industry sectors. One such sector, agriculture, forestry, fishing had the highest rate of death at work—32 per 100,000 or 8 times the national average. Almost half of the agriculture sector deaths were due to transportation accidents, more than half of those occurred “off the road.”

Highly pertinent questions for our farming clients:

- 1) do you have a roll-over protection structure (rops) on all of your tractors?
- 2) do you have “slow moving vehicle” signage on all implements which are moved on public roads?

--MMWR 56(13); 297-301

>A painful, indurated, erythematous swelling arose on the left wrist of a 62-year-old man who had recently visited Guatemala. Initially, the lesion was about 2 cm in diameter and had 2 central openings that drained serosanguinous fluid on pressure. The patient denied trauma to the area or insect bites.

When the patient returned for a follow-up visit, he brought 2 larvae that had exited the lesion spontaneously after continuous digital expression of the site. Microscopic examination of the specimens confirmed

the diagnosis of myiasis caused by *Dermatobia hominis*. (A)



After removal of the larvae, the lesion remained erythematous and painful, and the 2 central apertures became slightly necrotic.

The lesion was excised and drained. Gatifloxacin was started for a secondary bacterial infection. After 4 weeks, the patient's wrist had healed.

The human botfly is endemic to Central and South America. Typically, its eggs are deposited on mosquitoes, which bite the human host. The eggs penetrate the skin via the bite or a hair follicle and continue their life cycle in the subcutaneous tissue.¹ The host may experience pruritus and pain at the site and may even feel the larva move under the skin.² After about 6 weeks, the larva exits the skin through a punctum.

The larvae can be removed by manual extraction or by surgical excision. Occlusion of the punctum with petrolatum (or a similar substance) may induce the parasite to exit the skin to avoid asphyxiation.

Botfly infestation has been recognized in patients in

upstate SC exposed only in wooded/ swampy areas in GA/SC.

REFERENCES:

1. Lawson RD, Rizzo M. Digital infestation with the human bot fly. J Hand Surg [Br]. 2005; 30: 490-491.
2. Adams DW, Cooney RT. Excision of a *Dermatobia hominis* larva from the heel of a South American traveler: a case report. J Foot Ankle Surg. 2004; 43: 260-262.

(Case and photographs by Micah Chan, MD, MPH, and Suresh Ramamurthy, MD, of University of Wisconsin, Madison. Extracted from Consultant 47(3); 299)

ON THE WEB

>The Clinicial Outreach and Communication Activity (COCA) of the CDC recently held a conference call on **Rocky Mountain Spotted Fever**. Slides and transcript from the conference are available now at: <http://www.bt.cdc.gov/coca/callinfo.asp>

>An important discussion of **toxic mold** can be found at: <http://www.occhealthnews.net/fda-mold.htm>. Actually this tongue-in-cheek report in the FDA News addresses the problems of memory loss associated with ingestion of molded gelatin desserts served at the White House and elsewhere in Washington!

Closing Thought

Those who labor in the earth are the chosen people of God.

--Thomas Jefferson