

NEWS RELEASE

THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL SCHOOL AT DALLAS



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DALLAS-- A strange city cousin of tuberculosis rarely found outside the Dallas and Chicago metropolitan areas, which most often strikes youngish middle class suburbanites who like to drink milk, is the subject of an intensive study here.

In a basement laboratory at Dallas' Woodlawn Hospital, researchers led by Dr. John S. Chapman of The University of Texas Southwestern Medical School are tracking an elusive micro-organism known as mycobacterium kansasii, which is known to cause a TB-like disease that concentrates its attack on young adults and, occasionally, children. Unlike tuberculosis, it does not plague mostly older, and poorer humans.

Dr. Chapman and his associates have been pursuing the disease-producing organism for almost a decade. In between his teaching and administrative duties as Assistant Dean for Postgraduate Education and professor of internal medicine at Southwestern, he regularly works in the lab and in the field seeking the source of the quirkish disorder, called mycobacteriosis kansasii.

(more)

first add Dr. Chapman

Existence of the disease has been documented only since about 1954, and its bacterial source, *kansasii*, was first identified--and named--by a Kansas scientist in 1960. So far, the malady remains largely a mystery.

Chief among its baffling aspects are the inability of scientists to isolate its triggering organism outside patients already afflicted with the disease. Extensive searches made by Dr. Chapman, and others before him, have failed to turn up the distinctive rod-shaped micro-organism in dirt samples, stagnant water and other likely sites.

"We've even tried to find it on the bed rails of patients who have the disease," he said.

Bacteria resembling the *kansasii* strain have been cultured as far back as the 1890's by other researchers from barnyard hay and grass, Dr. Chapman said. And samples of raw (non-pasteurized) milk have yielded a few fast-growing organisms with many--but not all--the characteristics of *kansasii*.

The noted researcher pointed out that the incidence of mycobacteriosis *kansasii* is quite low, and there is no evidence that it is transmissible between humans. Its unusual geographic pattern strongly suggests an environmental factor in its existence.

(more)

second add Dr. Chapman

Dr. Chapman said cases of the disease amount to about 10 per cent of total annual admissions at Woodlawn--between 20 and 40 patients. The Lisbon Veterans Hospital experiences a similar incidence, he added.

The disease causes a tuberculosis-type cavity in the lung of adults, he explained, and afflicts the lymph nodes in the neck of young children. It prefers men victims to women by a two-to-one margin. Mean age of adult patients is 37.

Eighty per cent of cases respond favorably to the same drugs and treatment prescribed for tuberculosis, with the most severe cases requiring surgical removal of the diseased tissue. Convalescence is from six months to a year--again comparable to TB.

Despite the lack of supporting laboratory evidence, strong circumstantial indicators suggest a relationship between milk and mycobacteriosis kansasii, Dr. Chapman says.

For example, youngsters who contract the disease are usually between 15 and 30 months of age--about the time they normally go off prepared formulas and begin drinking plain milk.

Detailed studies of adult patients in the Dallas area show an overwhelming majority of them grew up in the milk-producing area of North Texas and drank untreated milk throughout their youth. Most have continued to drink milk regularly as adults. Those who drink little milk regularly eat ice cream and cheese.

(more)

third add Dr. Chapman

Nevertheless, Dr. Chapman emphasized, no hard test-tube evidence links the disease to milk. A recent examination of pasteurized milk samples failed to turn up any identifiable kansasii organisms among the various strains isolated.

Adding to the mystery is the unaccountable geographic scattering of mycobacteriosis kansasii. Dallas and Chicago areas are its predominant locations, along with a different strain found in a few communities in the Deep South. It is virtually unknown in such cities as Philadelphia, Baltimore and San Antonio, the scientist pointed out.

"This markedly localized pattern indicates some very specific kind of association--if we can only run it down," he said.

Other unanswered questions remain. One is why organisms that cause no harm in vast numbers of cases occasionally produce this serious illness. Another triggering factor is believed involved.

"I suspect something of a rather short duration--such as some of the virus diseases which for a short time alter drastically the body's defense mechanism against bacterial disease," he said. Chicken pox and German measles in children, and influenza in adults are among the suspected disruptive agents.

Not the least of the disease's perplexities is its strange choice of victims.

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fourth add Dr. Chapman

"It isn't hitting people with dilapidated bodies but mostly hard-working and generally otherwise healthy people," Dr. Chapman said. "They are younger, better housed, better paid and better educated than contemporary patients with tuberculosis."

Ethnic groups, he added, appear to be affected at a rate proportional to their ratio in the total population.

Progress in sorting through this stack of scientific riddles has so far been measured in fractions of an inch. But Dr. Chapman is philosophical about the failure to unearth more specific answers about the mysterious micro-organism.

"We've learned a whole lot," he observed wryly, "about what isn't."

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