

Tryst With The Microscope

Category: Stories

written by Reeta Mani | January 14, 2011

Reeta Mani

“So what kind of doctor are you?” asks my new neighbor, peering curiously at the MD degree on my visiting card.

“I’m a microbiologist,” I tell her. “I work in the lab and help clinicians to diagnose infectious diseases.”

Her questioning look fades. “So you don’t see patients?”

“No,” I answer. “I don’t have to interact closely with patients, except in a few cases.”

She reflects for a moment, then says, “It’s good in a way. You can help them, but you don’t have to witness their pain and suffering up close.”

I agree. In fact, that was one of the biggest reasons why I decided to specialize in microbiology. (In India, after graduating from medical school you can go straight into a three-year residency in microbiology; in the US, you can do a microbiology fellowship after completing a residency in pathology.)

I gained admission to the microbiology residency by describing my “fascination with microbes” and talking about how “infectious diseases are our country’s leading killer.” Later, though, I sheepishly confided to my sister the most important reason why I’d chosen a laboratory-based specialty: I was faint-hearted.

I’d worked with numerous patients during my internship, and my colleagues called me “very compassionate.” But I just couldn’t strike the right balance between my concern for patients and my need for self-preservation, for a sense of objectivity that could keep me from becoming an emotional wreck.

That’s why, years ago, I gladly traded my stethoscope for a microscope.

The world of microbes beckoned: I could devote myself to the study and diagnosis of infection-causing bugs, which know no geographical bounds and never cease to astonish. And since I wouldn’t have to examine patients directly, peeking and probing into their personal lives, I’d be relatively immune to emotional overinvolvement.

What I hadn’t bargained for was the ways in which my microscope would become a crystal ball, revealing patients’ most intimate secrets and sometimes even forecasting their future. Over the years, many of these secrets have brought joy to my weary eyes because they benefited the patient in question. Some secrets have fetched a sly smile to my face; still others have tormented me with a sense of my own helplessness or haunted me with their mystery.

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A disconcerting sight through the microscope lens: clumps of shocking-pink, beaded acid-fast bacilli stare at me from the calm, sea-blue background of a Ziehl-Neelsen stained sputum smear. I wouldn't be so worried if this patient hadn't already been on anti-tuberculous therapy for the past six months. Now I know that he hasn't been following the prescribed drug regimen. Or, worse, he has drug-resistant tuberculosis. Which strain, I wonder.

I envisage the endless struggle his body will have to wage against the ruthless bugs. Mutely, I wonder if he'll even turn up for his next appointment.

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Paradoxically, the sight of acid-fast bacilli in the next slide pleases me. It's a biopsy of a lymph node that the surgeon had suspected might be cancerous. To me, the diagnosis of a treatable infectious bug is better than a metastatic lesion from an as-yet-unknown primary cancer...I can almost hear the young woman's sigh of relief.

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Now I peek through my microscope into the wet-mount of a young patient's vaginal discharge. Despite a consultation with the gynecologist a few days ago, her discharge and pelvic pain haven't subsided. I see plenty of pus cells, suggesting an infectious process. Then I see something I'd least expect—long-tailed, tadpole-like creatures swimming in the fluid.

Sperm!

I smile. Despite her distressing symptoms, she's engaged in sex—probably only a few hours ago. Did she ignore her gynecologist's advice?

The next moment, though, I am overcome by a feeling of sympathy. Did she have any say in the matter? She might be yet another meek, passive woman trapped in an abusive so-called marriage

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I feel angry, disgusted, helpless and hopeless, all at once.

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The gram-stained cerebrospinal fluid is teeming with pairs of purple, lancet-shaped bacteria. *Streptococcus pneumoniae*. The smear looks ominous: there are no inflammatory cells at all. The patient's immune system has given up. Without even glancing at his history, I know that he's an alcoholic, probably homeless, whom the cops found lying delirious on a street.

By the time I page the resident to share my findings, the patient is dead. His body lies in the morgue, unclaimed.

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These unstained, budding yeasts with halos, standing out against the stark

black background in the India ink-stained spinal fluid, are Cryptococci, a fungal organism. Gazing into my crystal ball, the microscope, I can almost surely predict the future of this 30-something man with cryptococcal meningitis. His physician will order an HIV test, and more likely than not it will come back positive. Next in line for an HIV test will be the man's young wife.

This is only the beginning of the endless physical, social, emotional and economic struggles that this couple will face.

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In the innocuous-looking urine of an 8-year-old girl, I spot something unusual: a pear-shaped motile protozoon flipping across the fluid on the microscope slide.

Trichomonas vaginalis!

Suddenly I feel uncomfortable and restless. I suspect one of the most common reasons for this infection in a child.

Sexual abuse.

Neither the patient nor her guardian come back to collect the report. We are unable to trace her at her address. She is lost to follow-up.

The truth eludes me; questions continue to haunt me.

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Yes, I keep my distance from my patients. Yet sometimes I'm so disturbingly close to them.

My tryst with the microscope goes on...

About the author:

A microbiologist for the past ten years, Reeta Mani never ceases to find the vast empire of microorganisms fascinating. "Despite the technological advances that have taken place in diagnostic methods, I still vouch for the powers of the good old microscope!" Reeta currently works at the National Institute of Mental Health and Neurosciences (NIMHANS) in Bangalore, India.

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