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White Coat Notes

News from the Boston-area medical community

Success in Peru for drug-resistant TB treatment

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Drug-resistant tuberculosis comes in two forms: bad and worse. New research from **Harvard** shows progress against the worst kind.

People with multidrug-resistant tuberculosis can't be helped by two first-line drugs, cutting down their chances of being cured. People whose disease does not respond to those two first-line drugs or to three classes of second-line drugs have what is called extensively drug-resistant tuberculosis, or XDR TB. Their chances of cure are even lower. First reported in 2006, the XDR TB strain has been found in 49 countries.

Writing in the *New England Journal of Medicine*, researchers from **Harvard**, working with colleagues in Peru, report good news in the battle against XDR TB. Their retrospective study found that an aggressive, comprehensive treatment program tailored to individual patients cured more than 60 percent of patients whose previous therapy had failed.

“It’s essential that the world know that XDR-TB is not a death sentence,” lead author **Carole D. Mitnick** of **Harvard Medical School** said in a statement.

There were 48 patients with XDR TB among 810 people taking part in an individualized treatment program in metropolitan Lima. None of the 48 patients was coinfecting with HIV, a combination that has proved fatal in almost all cases in South Africa.

Between February 1999 and July 2002, 29 of the 48 patients with XDR TB were cured.

There were four main ingredients in the aggressive regimen. First, many drugs were used together at the highest doses patients could tolerate, in most cases for more than two years. Patients were tested to see which drugs their disease was susceptible to, and their treatment was adjusted to use at least five drugs that appeared likely to be effective.

Second, some patients with higher-grade drug resistance had surgery to remove parts of their infected lungs. Third, healthcare workers supervised treatment in patients' home or health centers on a daily basis, making sure drugs were being taken, watching for side effects, and providing psychosocial and sometimes financial support. And fourth, patients had monthly lab tests to see how they were responding to treatment.

"This encouraging result constitutes a true change in the current perception of the disease as a virtual death sentence," **Dr. Mario C. Raviglione** of the **World Health Organization** writes in an editorial appearing with the article. "If every national program put this strategy in place with equal vigor and assertiveness, as in the metropolitan Lima project, drug resistance would be minimized and, when already present, effectively managed."