

Antibiotics boost risk of infection with antifungal-resistant candida

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Previous exposure to certain antibiotics could boost the risk of infection with drug-resistant strains of a severe fungal infection. Researchers report their findings in the May 2012 issue of the journal *Antimicrobial Agents and Chemotherapy*.

Candida species are frequent causes of hospital acquired infection. Patients at greatest risk are those with “prolonged hospitalization, abdominal surgery, antibiotic treatment, neutropenia, and central venous catheterization,” the researchers write. Candidemia leads to high rates of “attributable” mortality, longer hospitalizations, and “excessive costs.”

Ronen Ben-Ami of Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, and his colleagues identified 444 patients who had Candida growing in their blood; 8.5 percent of whom were infected with Candida strains that were resistant to fluconazole, an important antifungal used to treat this infection. For all 444 patients, the researchers obtained detailed histories of antibiotic exposure during the month prior to onset of candidemia. They found that previous exposure to four antibiotic drugs or drug classes increased the risk of infection with fluconazole-resistant Candida nearly three-fold.

“A striking feature of the current cohort of patients with candidemia is the almost universal exposure to antibacterial drugs in the preceding month,” the researchers write. “Moreover, the majority of patients received multiple classes of antibacterials, either concomitantly or sequentially.”

“Our findings underscore the importance of limiting the use of antibiotics to those situations where these drugs are strictly indicated,” says Ben-Ami. He further recommends that clinicians treating patients with candidemia should take the patient’s recent antibiotic exposure history into account when selecting the antifungal treatment. “Clinicians should be aware that patients who have recently been treated with certain antibiotics are at increased risk of infection with drug-resistant [candida](#), which in turn could lead to treatment failure,” he says. “Previous research has shown that around one third of antibiotic prescriptions are unnecessary.”

More information: R. Ben-Ami, K. Olshtain-Pops, M. Giladi, et al. for the Israeli Candidemia Study Group, 2012. Antibiotic exposure as a risk factor for fluconazole-resistant *Candida* bloodstream infection. [Antim. Agents Chemother.](#) 56:2518-2523.

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