

We have heard a great deal in medical literature about the so-called "opportunistic organisms." I consider this a semantically poor euphemism, but that's not the point. It is important to our thesis to mention the fungus *Candida albicans*. This is one of a group of saprophytes. A saprophyte is an organism that is normally found in the gut and usually does no harm; it is of limited pathogenicity under normal circumstances.

*Candida* may emerge as a systemic infection and seed into many organs during or following broad spectrum antibiotic therapy with or without concomitant corticosteroids or immunosuppressive drugs. This phenomenon has been related to suppression of susceptible intestinal bacteria with disruption of the normal ecologic balance. Everyone's intestinal tract exists in a state of balance between various groups of micro-organisms. We acquire these as soon as we begin to live; (literally), and they exist in symbiosis with the host throughout life. However, when one gives antibiotics occasionally this balance will be disrupted, and organisms that are not killed by this particular antimicrobial agent may gain ascendancy. They will proliferate and often they will escape the intestinal confines, and if one is also receiving corticosteroids or immunosuppressive drugs, this occurs at a time when the normal defense mechanisms (to resist infection) are all but paralyzed, and one can get a systemic infection with fungus.

Another example is the devastating influence of prolonged—

Senator NELSON. Is there any drug that is effective against the fungus?

Dr. MOSER. Yes. There is amphotericin B which is a fairly effective systemic fungicide agent.

Another example is the devastating influence of prolonged corticosteroid therapy upon the elderly patient who is somewhat immobilized by cardiovascular disease or arthritis. In these individuals accelerated demineralization is encouraged through the antianabolic effect of corticosteroids. In other words, the corticosteroids will actually accelerate the normal tendency of the bones to lose calcium and some of their protein matrix. And again this is a classic demonstration of exacerbation, or making more severe, a degenerative process induced by a drug. In this situation we start with one disease, and our treatment for it produces another disease.

Let's modify the question again. What is known of the effects of drugs upon a previously diseased organ, with limited capability to metabolize or detoxify or otherwise cope with a drug given to treat another illness? Now, I have mentioned the phenacetin controversy. The discussion here revolves around the status of analgesic compounds in the provocation of a variety of interstitial kidney infection and destruction of papillary tips of the kidney in a normal organ. This is a longstanding controversy in which some of the analgesic drugs are thought to be able to cause specific disease of the kidney. But this discussion is about what they do in a normal kidney. And I ask what effect does phenacetin or aspirin or caffeine have upon a sick kidney, already poorly disposed to resist assault from either microorganisms or nephrotoxic drug?

Mr. GORDON. May I interrupt here for a moment?

Dr. MOSER. Yes.

Mr. GORDON. This is the APC tablets?