CC/NUMBER 30
JULY 25,1983

This Week's Citation Classic

Young R C, Bennett J E, Vogel C L, Carbone P P & DeVita V **T.** Aspergillosis: the spectrum of the disease in 98 patients. *Medicine* **49**:147-73, 1970.
[Solid Tumor Serv., Med. Branch, Natl. Cancer Inst., and Infectious Disease Sect., Lab. Clin. Investigation, Natl. Inst. Allergy and Infectious Diseases, Natl. Insts. Health, Bethesda, MD]

The clinicopathologic spectrum of aspergillosis in 98 patients from a single institution served to characterize the disease seen in the immunosuppressed host. In such patients, invasive manifestations predominated over the allergic and colonizing forms of the disease seen in other patients. [The *SCI*® indicates that this paper has been cited in over 290 publications since 1970.]

Robert C. Young
Medicine Branch
National Cancer Institute
National Institutes *of* Health
Bethesda, MD 20205

June 1,1983

"As a fledgling member of the attending staff of the National Cancer Institute's Medicine Branch, I arrived at a time when the program was alive with enthusiasm about the role of intensive combination chemotherapy in the treatment of disseminated malignancies. The initial successes with such treatment for Hodgkin's disease had already produced a report destined to become another *Citation Classic.*[1] However, it was also apparent that unusual infectious complications, different from those to which we had all been accustomed on general medical services, were being seen with increasing frequency. While the predominant infections were bacterial, fully 20-25 percent of the fatal complications seen in our patients were fungal. Although complications involving *Candida* organisms were most common, we saw at least one fatal case of aspergillosis a month during my first year on the senior staff.

"My chief, Vincent T. DeVita, Jr., pointed out that we were in the unusual position of seeing more of these unique infections than most specialists in infectious disease. Out of these discussions and a growing feeling that the manifestations of the disease were different in the immunocompromised host, we undertook the comprehensive review. I was also fortunate to have the expertise of John E. Bennett, whose in-depth knowledge of the common manifestations of *Aspergillus* infections in other patient populations convinced us that the disease described in the literature was not the disease we were seeing. Invasive disease had replaced fungus balls and allergic bronchopulmonary aspergillosis. I remember with great delight the excitement of being alone in the record room of the National Institutes of Health late at night extracting the data from the clinical and pathology records of patients known and unknown to me which together served to characterize aspergillosis in the immunosuppressed host.

"This paper has been highly cited for the following reasons. Not only was the study the first to describe in detail the clinicopathologic spectrum of this disease in a large number of patients, but it emphasized the importance of the underlying disease, its treatment, and the difficulty of diagnosis. Few of these basic observations have changed in the past 13 years since the paper was published but the importance of infectious complications in immunosuppressed hosts has become increasingly important in immunodeficiency syndromes and with widespread use of immunosuppressive chemotherapy, not only for malignant disorders but for other serious nonmalignant systemic diseases as well as organ transplantation. Aspergillosis continues to be a frequent complication of such illnesses and available treatments have not developed sufficiently to have altered either the frequency or the manifestations of the disease greatly since our publication. The continued importance of this area of infectious disease has been comprehensively discussed recently."[2]

1. **DeVitaV T, Jr., Serpick A A & Carbone P P.** Combination chemotherapy in the treatment of advanced Hodgkin's disease. *Ann. Intern Med.* **73**:881-95. 1970.
[Citation Classic. *Current Contents/Clinical Practice* **7(12):** 10. 19 March 1979.)
2. **Pizzo P A & Young R C.** Management of infections of the cancer patient. (DeVita V T, Hellman S & Rosenberg S A. eds.) *Cancer: principles and practice of oncology.* Philadelphia: Lippincott, 1982. p. 1677-703.