Laboratory and Epidemiology Communications

Inverse Relation between Number of Methicillin-Resistant Staphylococcus aureus (MRSA) Isolates and Total Number of Bacterial Specimens Submitted to Laboratory Diagnosis

Kozue Iwakawa¹, Naho Tusaka¹, Harumi Iwakawa¹, Humio Sato¹ and Kenji Yamamoto¹,²*

¹Division of Clinical Microbiology and Immunology, Bun 'in Hospital of University of Tokyo, Mejirodai 3-28-6, Bunkyo-ku, Tokyo and
²Department of Medical Ecology, Research Institute, International Medical Center of Japan, Toyama 1-21-1, Shinjuku-ku, Tokyo

Communicated by Hiroshi Yoshikura

(Accepted February 8, 2000)

For control of hospital infection, information on bacterial isolates provided by the laboratory is of critical importance (1). The laboratory diagnosis of bacteria is, however, costly and requires human labor. Therefore, it is desirable to limit such tests to a minimum; for example, only to those patients whose symptoms are suggested to be due to bacterial infections.

Methicillin-resistant Staphylococcus aureus (MRSA) is one of the major causative agents responsible for hospital infections. This infection is usually symptomless but causes serious infections in immuno-compromized hosts. It is assumed that, if doctors send more clinical specimens to the laboratory, the number of MRSA isolates will increase. The data obtained in a university-affiliated hospital in Tokyo suggested that this was, however, not the case (Fig.); there was an inverse relation between number of MRSA isolates and the number of specimens sent to the laboratory for bacterial isolation. In this hospital, most of the specimens came from the wards of the internal medicine department. We speculate that the increase in the total number of specimens sent to the laboratory reflected doctors' increased concerns regarding hospital infection, resulting in a decrease of MRSA.

REFERENCE


*Corresponding author: E-mail: bacteria@ims.u-tokyo.ac.jp

Figure. Relation between number of MRSA isolates and total number of bacterial specimens submitted to laboratory diagnosis. Ordinate: number of specimens. Abscissa: year. Open circles: total number of specimens submitted to laboratory diagnosis. Closed circles: number of MRSA isolates.