Japan Society of Medical and Biological Engineering

Current Status of the Japanese Society of Pathology With Its 100th Anniversary

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Introduction

The Japanese Society of Pathology (JSP) marked its 100th anniversary in 2011. The JSP now has 4,189 members in total, including 3,436 physicians and 272 dentists. Academic council members who play a central role in the activities of this society total 1,478, and the executive board, consisting of 20 board members, formulates JSP policies. Candidates for board membership who are elected based on the votes of academic council members are appointed by JSP members at the annual meeting, and their term of office is 2 years. The JSP holds two annual meetings per year, i.e., one in spring and the other in autumn. The latter is a special session.

The JSP has a variety of tasks including the development and support of deserving physicians through the education of medical school students, studies aimed at the elucidation of pathological conditions, and pathological diagnosis in medical institutions. In addition, autopsy occupies an important position in the education of both medical students and residents. These aspects of pathological science are indispensable for the maintenance and improvement of the quality of medical science and medical care in Japan. Thus, we consider the role of the JSP to be very significant. On the other hand, as for the human resources needed to perform these tasks, there are 1,478 academic council members consisting of experienced pathologists, and 2,123 pathological diagnosis specialists. The latter have passed the specialist examination and been accredited by the JSP, and are now working in more than 640 hospitals nationwide.

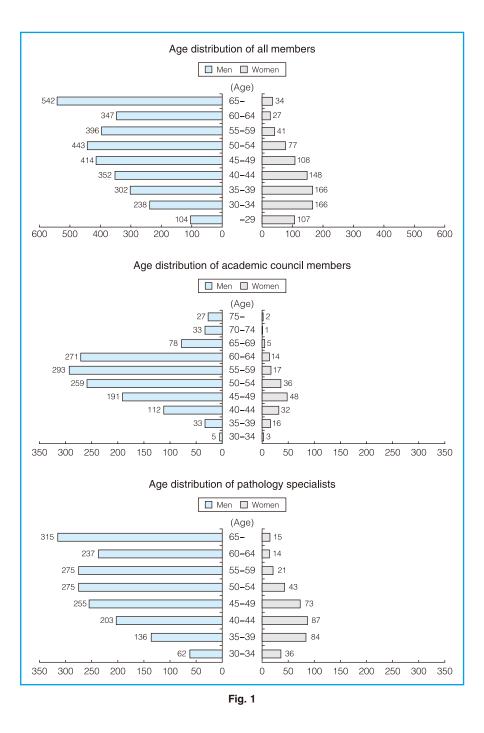
The human resources carrying out the respon-

sibilities in these various fields of pathology are educated and trained mainly in about 80 medical schools throughout the nation. In general, each medical school has two pathology courses, and, currently, virtually all university hospitals have a pathology department or a diagnostic pathology laboratory. These pathology departments or laboratories generally have 5 staff members at most, having a much smaller size than their European or North American counterparts. This constitutes a significant weakness in the field of pathology in our nation, particularly in the implementation of research and diagnosis. Therefore, an increase in the size, i.e., the number of young physicians specializing in pathology, is strongly desired. However, in actuality, the age distribution of JSP members is disproportionately skewed toward middle or more advanced ages, while there are ever fewer young physicians among pathology specialists, resulting in a progressive aging trend within this specialty (Fig. 1). An overview of each area of pathology is provided below.

Education

In the 1990s, there was active discussion about revising the educational curriculum in medical schools nationwide. During this time, the conventional curriculum centering on classroom lectures was converted to a more tutorial, comprehensive curriculum. However, with such a curriculum, pathology has come to serve an essentially explanatory or supportive role of the morphological characteristics of diseases, and the conventional venue for systematic education aimed at giving medical students an understand-

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ing of the mechanisms underlying the development and progression of pathological conditions has been lost. Reconsideration of the curriculum is necessary for cultivating logical thinking and assuring an extensive grasp of knowledge by students. Under the current situation of dramatically increased professional expertise, it is difficult for the limited number of university staff involved in education to provide every area of professional expertise needed by students, not to mention the considerable time constraints. Therefore, support from outside the campus is indispensable.

Research

Recent years have seen remarkable progress in molecular biology. Pathological studies now often include molecular pathology in addition to conventional organ pathology, histopathology, and cytopathology. In Japan, pathological studies to elucidate the etiology and pathological condition of a disease are conducted vigorously by physicians and other researchers of the fields surrounding pathology as well as researchers affiliated with traditional pathology departments. Under these circumstances, researchers affiliated with traditional pathology departments now have a less-defined or even somewhat vague role. In addition, pathology departments in Japan are much smaller in scale than those in European countries and North America, highlighting the undeniable shortage of competent and skilled sites for conducting "studies of diseases." The size of a pathology department in Japanese university is usually less than 1/10 that of an average counterpart in a European or North American university. It is a harsh reality surrounding the field of medical science and medical care in Japan, including lack of manpower, vast expenditures of energy spent in education and diagnoses, and the further declining economic situation after the East Japan Earthquake Disaster. Under these circumstances, the responsibilities of educating medical students are still equally shared among approximately 80 medical schools in this nation. On the other hand, as regards pathological studies, the strict selection of focusing on research, which was introduced previously, but currently exists only in name, should be reconsidered by the JSP. Specific measures to achieve a substantial increase in the scale of pathological departments are also necessary.

Pathological Diagnosis

Precise pathological diagnosis forms the basis of proper treatment of cancer. More specifically, the modality of treatment, such as surgery, radio-

therapy, or chemotherapy, is chosen based on an accurate pathological diagnosis. Pathological diagnosis by microscopic examination of tissue specimens, whether obtained endoscopically or surgically from patients, is carried out by pathology specialists working at the hospital. Pathological diagnosis is of extreme importance because it provides the final diagnosis. If, unfortunately, the patient has died, autopsy is performed to clarify the pathological condition including the propriety of the clinical diagnosis and treatment. The autopsy results are used for verification of the medical interventions, and also serve an important role in the education of residents. For this purpose, clinicopathological conferences (CPC) are held in designated hospitals for postgraduate clinical training.

Pathology specialists are required to play a central role in these CPC. To socially guarantee the operational ability of the CPC, which is aimed at resident education and at verification of medical interventions based on biopsy, pathological diagnosis of tissues removed at operation, autopsy, and overview of the postmortem results obtained, the JSP accredits pathology specialists by annual examination.

Currently, there are 2,123 pathology specialists in Japan. On the other hand, there are 642 hospitals that have full-time pathology specialists across the country, yielding a figure of 3.3 specialists per institution by simple arithmetic. However, considering the fact that pathologists are concentrated in university hospitals, the number of pathologists per institution would presumably be much lower. At present, 24% of pathologists in hospitals are working as the only pathologist in their institution. Approximately 50 of the designated cancer care hospitals lack a full-time pathologist. The shortage of pathology specialists is growing into a serious problem with the ever increasing pathology workload. In addition, there is the aforementioned trend in the aging of pathology specialists, whose average age is currently between 50 and 60 years. Clearly, urgent measures need to be taken as soon as possible.

References

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