

# Division of Diagnostic Pathology

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## Introduction and Organization

Department of Pathology and Diagnostic Pathology (\*) and Division of Diagnostic Pathology of University Hospital have been organized to function as a unit.

We set up Telepathology & Remote Diagnosis Promotion Center (TRDP Center), and also started Outpatient Clinic of Pathology, and Dr. Sasaki explained the detail of cancer pathology to the patients with breast cancer.

To promote the application of development of

genomic medicine to clinical practice, we set up Center for Genome Pathology Standardization (Tailor-made Medical Treatment Program, funded by Ministry of Education, Culture, Sports, Science, and Technology) (<http://genome-project.jp/>). The mission of the Center is to investigate basic technologies for tissue banking, and to hold seminars for doctors and technicians (Drs. Sasasaki, Morikawa, Kunita).

## Clinical activities (diagnostic pathology and autopsy)

The annual statistics of the pathologic practice in 2015 fiscal year consisted of 16,739 cases of histological examination (23,378 specimens), 17,959 cases of cytology (24,034 specimens), 892 of frozen histology, 468 of intra-operative cytology, 45 cases of autopsy (16.4% of the autopsy rate), and 1 autopsy case from other hospitals.

The following surgical pathology conferences are regularly held with each clinical division for the cases of various tumors of organs; thoracic organs (Dr. Shinozaki-Ushiku in charge), liver and pancreato-biliary tract (Drs. Shibahara, Hayashi, Tanaka), liver metastasis (Dr. Abe), male genitourinary (Dr. Morikawa) and female genital tracts (Dr. Ikemura), breast (Drs. Ikemura, Sasaki), and bone and soft tissues (Dr. Ushiku). Biopsy conferences are also held in the cases of kidney (Drs. Shintani, Hayashi), and skin (Dr. Tanaka).

Our aim in the pathologic practices is to provide the correct diagnosis as soon as possible. We are addressing 'one-day pathology' using a rapid-histoprocessing machinery. We also perform double check for reviewing the reports and slides for all cases of histological examination to prevent a potential misdiagnosis.

Virtual slide scanners have been installed, which enabled us to deposit the biopsy specimens as digital information. We are setting out a future providing system of pathologic images for clinical divisions.

We hold autopsy case conferences on every Monday. Hospital clinico-pathological conferences (CPC) is also held every month as mentioned above, and two cases are discussed in each CPC. The contents are provided as CPC Digest by the hospital internet.

## Teaching activities

The lectures and exercise course of systemic pathology are for the 2<sup>nd</sup> grade-students. Clinical Clerkship (CC) courses of autopsy and surgical pathology are for the 4<sup>th</sup> grade students. Six students of 3<sup>rd</sup> grade took the elective clinical clerkship course.

We instructed all clinical residents (junior course) to submit a report of CPC case as an obligatory

requirement of their medical training for each of them. We have made out the digest version of CPC slides open in the hospital (Drs. Shintani and Hayashi), and also started e-learning program for interns to solve the problems in CPC by themselves, thereby facilitating their understanding (Dr. Ikemura).

The Division of Diagnostic Pathology received six junior residents (total 16 months) in 2014 for their second year program of the internship.

## Research activities

Dr. Sasaki is in charge of the research to evaluate feasibility of telepathology for daily practice of diagnostic pathology.

We continue the study to investigate the usefulness of post mortem CT images for hospital autopsy (Drs. Shintani and Abe). We obtain postmortem images with a CT apparatus in the autopsy-assisting CT room, and compare the results with those of autopsy in order to understand the patients' pathophysiology (Ref.9, 10, 27 in Department of Pathology and Diagnostic Pathology).

We continue the pathological studies of neoplastic diseases on the basis of surgical pathology conferences (see the pages of Department of Pathology and Diagnostic Pathology). We also cooperate with projects developing PET and in vivo imaging of cancers with Departments of Upper GI tract Surgery and Hepato-biliary & Pancreas Surgery.

Dr. Miyagawa was a Research Associate of Division of Diagnostic Pathology, primarily engaged in Investigation of Health Hazard by Radiation (ref. 21 in Department of Pathology and Diagnostic Pathology).

## References (Case Reports Only)

See the corresponding section of Department of Pathology and Diagnostic Pathology

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