

Radiology education through simulation-based learning and digital imaging technology Chutcharn Kongphanich* and Supakajee Saengruang-Orn,

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Abstract

Background

Radiology Department, Phramongkutkloa College of medicine Institution, has been offering education for medical cadet and medical student for 30 Years. The radiologic education for medical student includes diagnostic radiology, radiotherapy and nuclear medicine. The aim of this subject is to let the medical student understand the theory and practice.

Summary of work

Arrange the projects in finding equipment which helps in fundamental skill of in radiographic interpretations and ultrasound skills. These projects include:

1. The Anatomage Table is the most technologically advanced 3D anatomy visualization and virtual dissection tool for anatomy and physiology education. It can demonstrate the corresponding radiologic images (CT or MRI) and digital anatomy.
2. Ultrasonography Simulator is a medical simulation training tool that enables medical students to practice diagnostic and therapeutic applications as they relate to imaging interventions. It can help medical students to gain experiences in performing ultrasound exam and also give example of general disease, which may be found in daily medical practice.



Our radiology department is in the process of providing medical workstation and Picture Archiving and Communication System: PACS. This equipment will help the medical student be familiar with the PACS system and able to use the utility well.

Results

The Anatomage table helps medical students to clearly understanding of axial, sagittal and coronal radiographic images corresponding to anatomy. Medical students are also very interested and enthusiastic in practicing with ultrasound training model/ultrasonography simulator. They are able to apply knowledge with real patients correctly and confidently.

Discussion and Conclusion

Radiology teaching in our department has been developed continuously to increase the potential of medical students.

Take home message

By introducing the simulation-based learning to medical student, the student can get all of the knowledge and skill of radiology before encountering the patient. So the student can appreciate the importance of radiology as the eye of medicine.