

2025 Akita University Faculty of Medicine Syllabus

Category : 臨床医学アドバンストコース
Course Title : Medical Imaging and Anatomy
Eligible Students : grade 4 Elective Course
Code : 71594002
Schedule : week 13 ~ week 13
Credits : 0.5

1. Lead Instructor

Naoko Mori (Professor, Department of Radiology, 6179, Office Hour: North Clinical Research Building 1F Conference Room (12:00 13:00))

2. Instructors

Naoko Mori (Professor, Department of Radiology, 6179, Office Hour: North Clinical Research Building 1F Conference Room (12:00 13:00))

Takahiro Otani (Assistant Professor, Department of Radiology, 6179)

Kento Hatakeyama (Medical Doctor, Department of Radiology, 6179)

Emika murasawa (Medical Doctor, Department of Radiology, 6179)

3. Course Description Outline(Course Objectives)

授業の概要

放射線を用いる画像検査の知識の整理

1) 核医学 診断と治療 (3-3)

2) よく見る疾患の画像診断 (3-3)

3) 腹部画像診断 (3-3)

4) 胸部の画像診断 (3-3)

5) 骨盤の画像診断 (3-3)

6) 血管造影 (3-3)

7) 脳・頭頸部の画像診断 (3-3)

Course Description Outline

To organize knowledge regarding radiological images

1) Nuclear medicine. Diagnosis and treatment (3-3)

2) Images on basic diseases (3-3)

3) Abdominal imaging (3-3)

4) Chest Imaging (3-3)

5) Pelvic imaging (3-3)

6) Angiography (3-3)

7) Diagnostic imaging of the Head and Neck (3-3)

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よく見る疾患の画像所見の基本を知る

Course Objectives

To understand typical images on basic diseases

4. Textbook/Reference Books

標準放射線医学（医学書院）、必修放射線医学（南江堂）、新臨床 X 線診断学（医学書院）

5. Assessment

出席、レポートにより評価する

Attendance, Reports

6. Out of Class Study/Message

若干の授業変更の可能性があるので、掲示板で確認すること

Class changes may occur depending on the instructor's schedule. Please refer to the notice board for information on any changes.

指定教科書や事前配布資料などで、予習・復習をしておくこと

Preview and review with designated textbooks and handouts.

Topics and Contents of class, Course Objectives						
	Class Date	Period	Class Format	Topics and Contents of class, Course Objectives	Instructors	Class Room
1	7 / 3 (Thu)	1-2	Lecture	<p>Theme: 核医学 診断と治療 Nuclear Medicine Diagnosis and treatment</p> <p>核医学検査時に FDGPET-CT の目的、原理、方法、放射性医薬品の物理的・科学的性質等を理解し、これから得られる核医学画像について臨床的観点から説明できる</p> <ul style="list-style-type: none"> Explain the purpose, principles, and methods of FDG PET-CT and the physical and scientific properties of radiopharmaceuticals at the time of nuclear medicine examination and be able to explain from a clinical perspective the nuclear medicine images that will be obtained. 	Naoko Mori	Conference room in central radiology
2	7 / 3 (Thu)	3-4	Lecture	<p>Theme: よく見る疾患の画像診断 Images on basic diseases</p> <p>遭遇頻度が高く、画像診断が臨床的判断決定において重要な救急疾患を理解し、説明できる。</p> <ul style="list-style-type: none"> Explain the emergency conditions that are frequently encountered and for which diagnostic imaging is important in clinical decision. 	Naoko Mori	Conference room in central radiology
3	7 / 3 (Thu)	5-6	Exercise	<p>Theme: Small test including preparation</p> <ul style="list-style-type: none"> 核医学 診断と治療 よく見る疾患の画像診断 頭頸部の画像診断 <p>Nuclear medicine diagnosis and treatment, basic diseases, head and neck</p>	Naoko Mori Takahiro Otani	Conference room in central radiology
4	7 / 3 (Thu)	7-8	Lecture	<p>Theme: 腹部画像診断 Abdominal imaging</p> <p>実際の病院の画像読影システムビューアーを用い、CT 画像 MRI 画像の解剖学的構造、病変部を同定できる。</p> <ul style="list-style-type: none"> Identify anatomical structures and lesions in CT and MRI images using an actual hospital image reading system viewer. 	Naoko Mori	Conference room in central radiology
5	7 / 3 (Thu)	9-10	Lecture	<p>Theme: 胸部の画像診断 Chest Imaging</p> <p>胸部画像診断。国家試験に挑戦してみよう。国家試験に出題された画像について解説します。画像所見の理解向上を目標とします。</p> <ul style="list-style-type: none"> Chest imaging diagnosis. Try the national exam. We will explain the images that were asked in the national exam. The goal is to improve your understanding of image findings. 	Emika murasawa	Conference room in central radiology
6	7 / 4 (Fri)	1-2	Lecture	<p>Theme: 骨盤の画像診断 Pelvic imaging</p> <p>骨盤、特に婦人科疾患の画像所見を理解し、説明できる。</p> <ul style="list-style-type: none"> Be able to understand and explain imaging findings of the pelvis, especially gynecological diseases. 	Naoko Mori	Conference room in central radiology

Topics and Contents of class, Course Objectives						
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7	7 / 4 (Fri)	3-4	Lecture	Theme: 血管造影 Angiography 血管造影検査および血管内治療の種類, 手法と頻度の高い具体例について理解できる. • Understand the types of angiographies and endovascular treatment, Thier techniques, and the most frequent specific examples.	Kento Hatakeyama	Conference room in central radiology
8	7 / 4 (Fri)	5-6	Exercise	Theme: 小テスト Small test- Chest/pelvis,angiography • 骨盤部の画像診断 • 血管造影 • Pelvic imaging • Angiography	Naoko Mori Kento Hatakeyama	Conference room in central radiology
9	7 / 4 (Fri)	7-8	Lecture	Theme: 脳・頭頸部の画像診断 Brain , head and neck 脳・頭頸部で頻度の高い疾患の画像所見を説明できる. • Understand the types of angiography and endovascular treatment, their techniques, and the most frequent specific examples.	Takahiro Otani	Conference room in central radiology
10	7 / 4 (Fri)	9-10	Exercise	Theme: Small test-Abdomen,postmortem CT • 腹部画像診断 • 胸部の画像 • Abdominal Imaging • Chest Imaging	Naoko Mori Emika murasawa	Conference room in central radiology