

[Keywords] Periodontal tissue, periodontal disease, periodontopathic bacteria, immune response, risk factors, periodontics

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[Course aims]

Fifty years have passed since periodontal disease was proven to be an infectious disease. During those 50 years, outstanding progress has been made in in periodontology/periodontics now that the etiology and phenotypes of the disease are better understood and efficacious treatment modalities have been established. However, it has been reported that 70% of Japanese people still suffer from periodontal disease, so further understanding of the etiology of the disease is needed and more efficacious periodontal treatments need to be developed. The aims of the lectures and the laboratory work in this module are to obtain the knowledge and skills required to carry out basic as well as clinical research in periodontology/periodontics. In addition, in order to enable students to qualify as specialists in periodontics in the future, the course provides a detailed insight into the etiology, pathogenesis and treatment of periodontal disease in lectures, and clinical cases to provide the knowledge and techniques required to be able to treat patients in the clinic.

[Course objectives]

The goal of this course are for students to be able to:

- (1) Explain the various types of periodontal disease.
- (2) Explain the epidemiology of periodontal disease.
- (3) Explain systemic/local risk factors for periodontal disease.
- (4) Understand the various experimental skills needed for basic research related to periodontal disease.
- (5) Understand the objectives and techniques of basic periodontal treatments and perform them in practice.
- (6) Understand the objectives and techniques of various surgical periodontal treatments and perform them in practice.
- (7) Understand the objectives and techniques of regenerative periodontal treatments and perform them in practice.
- (8) Carry out interdisciplinary periodontal treatments.

[Course content]

Class	Theme	Content	Academics
1	Classroom lectures regarding	1) Epidemiology, etiology, pathogenesis, and phenotypes of periodontal disease 2) Various experimental techniques used for in vitro studies 3) Various experimental techniques used for animal experiments 4) How to deliver a scientific presentation and write a scientific paper	
2	Seminar regarding	1) Clinical cases and related treatment planning 2) Literature related to periodontology/periodontics	
3	Course for obtaining clinical knowledge and skills in periodontal regenerative surgery as well as reparative surgery using a porcine jaw.		
4	Clinical practice	1) To be able to perform basic periodontal treatments. 2) To understand various techniques used for periodontal surgery and periodontal regenerative treatments by observing and assisting with clinical cases 3) To be able to carry out periodontal surgery and periodontal regenerative treatments.	

[Class implementation method]

Combination of face-to-face learning and distance learning

Class implementation depends on the implementation policy of each department (graduate school) or school.

[Grading policies]

Your overall grade in class will be decided based on class attendance and reports.

[Textbook]

Students will be informed of which textbook to use.

[Reference book]

Students will be informed of which reference book to use.

[Remarks]

More than half of the cases required to be qualified as a specialist in periodontics are to be completed.

[Preparation for course]

Students must understand the course objectives and prepare appropriately for classes.