| Seminar/Lab./Clinic | Academic year | 1,2 | credits |
|---------------------|---------------|-----|------------|
| | | | 2 • 2 • 10 |

Adhesive Dentistry

[Keywords] Adhesive Restorative Treatment, Adhesive Restorative Materials, Caries, MI

[Academics] Takashi Saito, Shuichi Ito

[Course aims]

Operative dentistry became the standard approach for treatment of dental caries following its codification by Black at the start of the 20th century. Subsequent progress in cariology together with the development of dental adhesive restorative materials and remarkable advances in adhesion technology led to the proposal of minimal intervention (MI; minimally invasive caries treatment) guidelines for caries treatment by the FDI World Dental Federation in 2000. Through lectures and practical training, this course aims to deepen your understanding of the new methods of caries examination, diagnosis, prevention, removal, restoration and post-restoration management that underlie the concept of MI. You will acquire fundamental skills and be able to understand the biomaterial-related characteristics, durability, and other aspects of prevailing adhesive restorative materials.

[Course objectives]

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

- 1. Explain the causes of caries and other oral hard tissue diseases.
- 2. Understand and implement methods of examination and diagnosis for caries and other oral hard tissue diseases.
- 3. Explain the concept of MI.
- 4. Understand and implement methods for prevention of caries and other oral hard tissue diseases.
- 5. Understand and implement methods for restoration of caries and other oral hard tissue diseases.
- 6. Understand the biomaterial-related characteristics and durability of adhesive restorative materials.
- 7. Understand and implement post-adhesive restoration management.
- 8. Understand and implement the procedures used in basic research on adhesive restorative treatment.

[Course content]

| Class | Theme | Content | Academics |
|-------|--|---------|------------------------------|
| 1 | Learn about causes of and methods for examination and diagnosis of caries and other oral hard tissue diseases. | | Takashi Saito Shuichi Ito |
| 2 | Learn about the concept of MI | | Takashi Saito Shuichi Ito |
| 3 | Learn about the practicalities of in vitro/ in vivo research and related analytical methods | | Takashi Saito Shuichi Ito |
| 4 | Learn about presenting at scientific conferences and writing papers | | Takashi Saito Shuichi Ito |
| 5 | Hold a journal club | | Takashi Saito Shuichi Ito |
| 6 | Hold a clinical conference | | Takashi Saito Shuichi Ito |
| 7 | Hold seminars taught by external lecturers | | Takashi Saito Shuichi Ito |
| 8 | Participate in an academic conference | | Takashi Saito Shuichi Ito |
| 9 | Practical training regarding methods for removal and | | Takashi Saito Shuichi Ito |

| Class | Theme | Content | Academics |
|-------|---|---------|------------------------------|
| | restoration of caries | | |
| 10 | Perform adhesive restorative treatment on patients under care | | Takashi Saito Shuichi Ito |

[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, reports and achievement of clinical cases.

[Textbook]

Students will be informed of which reference book to use.

[Preparation for course]

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