UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Facial Reconstruction

2526-4-H4101D406

Aims

Provide the theoretical and technical-surgical principles for oro-maxillofacial reconstruction. The basic techniques of reconstructive surgery will be described, as well as insights into the new technologies that are now standard practice for surgeons specializing in this discipline. Practical aspects will also be developed with students through the presentation and discussion of real clinical cases.

Contents

To present the reconstructive surgical techniques available today, with particular attention to past achievements and future prospects, taking into account recent studies and rapidly developing new technologies in this field.
The objective is to provide students with guidance on the needs, indications, and technical and technological choices for optimizing the morpho-aesthetic and functional outcome of facial subunits, including the oral cavity, and the correction of anophthalmia.

Detailed program

Facial reconstructive surgery repairs or reshapes the face to restore its function and appearance due to congenital defects, trauma, or disease. Procedures can range from simple skin grafts to complex microvascular free tissue transfers, using tissue from other parts of the body such as bone, muscle, or skin to correct damage. The goal is to correct structural irregularities, improve functions such as chewing or speaking, and correct disfigurements caused by accidents, infections, or tumor removal.
Topics of facial reconstructive plastic surgery with grafts (skin, nerve, fat, and others) and flaps will be discussed.
The principles of vascularization of random skin flaps, composite axial flaps, and free microvascular flaps will be described. The anatomical, preparation, and indications for flap reconstructions will be explored.

The program includes an in-depth study of normal facial anatomy and the pathophysiology of congenital, post-traumatic, and post-oncological structural and functional defects.

Further study will include neural reconstructions and facial reanimation, oral reconstruction, and orbital reconstruction, including cases of anophthalmia.

The technological aspects of computer-assisted surgery (CAS), surgical navigation, CAD/CAM systems for personalized treatments with custom-made prosthetics, mixed reality, and Artificial Intelligence will be covered in depth.

Students will have the opportunity to discuss real clinical cases presented through photographic documentation.

Prerequisites

Passing the third year exams and enrolling in the fourth year

Teaching form

Lectures with PowerPoint presentations. Discussion of real-life clinical cases with PowerPoint presentations.

Textbook and teaching resource

PPT presentations. Applicants will be advised on general and in-depth texts.

Semester

Second semester

Assessment method

There will be no ongoing exam. Students will be assessed through oral questions throughout the course.

Office hours

The professor receives by appointment

Sustainable Development Goals