

# DERMATOLOGY

Total credits:

**7**

Theory credits:

**3**

Practical credits:

**4**

## GENERAL OBJECTIVES

- Acquire the morphological and pathological bases and concepts, as well as the necessary terminology, to understand the physiopathology, clinical semiology, diagnosis, evolution, prognosis and treatment of the principal dermatological diseases.
- Understand the problems involved with sexually transmitted diseases and be aware of the attitude that must be adopted when dealing with such cases.
- Understand the importance of the cutaneous manifestations that can appear in systemic processes.
- Understand the importance of diagnosis and therapeutic orientation of processes in the area of cutaneous oncology.

## SPECIFIC OBJECTIVES

At the end of the training process, students should:

**A.** *Be able to identify the principal **problems** related to dermatological diseases. Students should therefore know:*

1. The semiology of elementary dermatological lesions and their associated symptoms.
2. The characteristics of dermatological infectious diseases: microbial, viral, fungal, microbacterial and zooparasitic, as well as sexually transmitted diseases.
3. The characteristics of dermatosis caused by physical and chemical agents, toxicodermatoses.
4. The characteristics of erythematous-squamous dermatoses, particularly eczemas and psoriasis.
5. The characteristics of autoimmune dermatoses; ampullary and connective tissue diseases.
6. The cutaneous manifestations of systemic diseases.
7. The concept of paraneoplastic dermatoses.
8. The most frequent diseases of the adnexa.
9. The characteristics of cutaneous lymphomas and of benign and malignant tumors of the skin and mucosa.

**B.** *Know the theoretical bases of the **diagnostic methods** in dermatology, specifically in:*

1. Dermatological clinical history.
2. Cutaneous examination and the recognition of elementary lesions.
3. Particularities of cutaneous biopsy.
4. Particularities of immunopathology and molecular genetics as applied to dermatology.
5. Taking samples for microbiology and mycology.
6. Epicutaneous tests.
7. Photobiological examinations.
8. Epiluminescence.

**C.** *Have acquired the following **skills** relating to dermatology:*

- Know how to perform an anamnesis directed at cutaneous diseases and their relation with the pathology of other organs, apparatus and systems.
- Know how to examine the skin and interpret elementary dermatological lesions.
- Know the principal cutaneous manifestations of systemic diseases.
- Know the indications for cutaneous biopsy.

- Know the indications for immunopathology techniques.
- Know the applications of molecular biology techniques.
- Know the indications for epicutaneous tests.
- Know how to evaluate the results of microbiological and mycological examinations, particularly in relation to sexually transmitted diseases.
- Know how to evaluate and interpret dermatopathology reports, particularly those related to malignant tumor pathology.

## **PROGRAMME**

### **A. THEORETICAL BASES OF DIAGNOSTIC METHODS IN DERMATOLOGY**

- 1- Direct examinations in dermatology and sexually transmitted diseases.
- 2- Microbiological and mycological cultures.
- 3- Histopathology. Foundations. Aspects in ampullary diseases and malignant melanoma
- 4- Immunopathology. Foundations. Application to autoimmune dermatological diseases
- 5- Serologies in dermatology
- 6- Epiluminescence

#### **a) Dermatological examination**

Examination of the skin, hair, nails and mucosa.  
Identification of primary and secondary elementary lesions.  
Identification of clinical process according to lesion type, form, localization and distribution.  
Identification of symptoms: itching, stinging, pain.  
Learning the preparation process for a dermatological anamnesis related to systemic affectation.

#### **b) General physical examination in dermatology**

Assessing the general appearance of the patient and collecting clinical data related to the cutaneous process.  
Interpretation of the principal analytical data in dermatology.

#### **c) Cutaneous biopsy**

Methodology and taking skin samples.  
Indications and contraindications for cutaneous biopsy.  
Methodology and sample collection in cutaneous biopsies for anatomopathological study.  
Methodology and sample collection in cutaneous biopsies through immunofluorescence and immunophenotyping techniques and studies of molecular biology or electronic microscopy.

#### **d) Microscopic techniques**

Methodology and indications for taking squamous and exuded samples with direct examination to detect bacteria or fungi using different stains.  
Cytodiagnosis, collection of skin and mucosa samples

#### **e) Epicutaneous tests**

Foundations of epicutaneous tests for detecting the different allergens in dermatology.  
Methodology and indications for epicutaneous tests.  
Contraindications.  
Interpretation of results.  
Evaluating tests in the professional environment.

### **B. DIAGNOSIS AND TREATMENT IN DERMATOLOGY**

#### **I. Anatomy and functions of the skin. Dermatological semiology**

##### **Topic 1. Recording the structure and uses of the skin**

Epidermis, dermoepidermal junction, dermis, hypodermis and adnexa.

Keratogenesis, melanogenesis.

## **Topic 2. Dermatological semiology**

Anamnesis.

Examination of the skin and mucosa.

Primary and secondary elementary cutaneous lesions.

## **II. Cutaneous infections and sexually transmitted diseases**

### **Topic 3. Bacterial dermatoses. Pyodermatitis**

Generalities. Diagnosis and treatment of staphylococcal and streptococcal cutaneous infections: impetigo, ecthyma, erysipelas, cellulitis, lymphangitis, necrotizing fasciitis, Staphylococcal scalded skin syndrome.

Pyogenic infections of the adnexa: folliculitis, furunculosis, anthrax.

Erysipeloid. Erythrasma. Carbuncle. Cutaneous infections due to pseudomonas.

### **Topic 4. Microbacterial infections**

Cutaneous tuberculosis. Atypical microbacteria.

### **Topic 5. Leprosy**

Concept. Clinical characteristics. Therapeutics. Prognosis.

### **Topic 6. Viral infections**

Herpes virus infections: Herpes simplex. Herpes zoster.

Cytomegalovirus infections. Epstein-Barr virus infection.

Papillomavirus infections. Verrucae: verruca vulgaris, flat wart, plantar wart, acuminated condyloma, bowenoid papulosis, epidermodysplasia verruciformis.

Poxvirus infections: Orf (contagious ecthyma), Molluscum contagiosum.

Parvovirus B19 infections.

Gianotti-Crosti Syndrome.

### **Topic 7. Mycosis**

Superficial muco-cutaneous mycoses.

Pityriasis versicolor.

Dermatophytosis, tinea.

Muco-cutaneous candidiasis. Diagnosis. Treatment.

### **Topic 8. Sexually transmitted diseases (I)**

Balanitis.

Urethritis.

Reiter's syndrome.

Cutaneous manifestations of HIV infection.

### **Topic 9. Sexually transmitted diseases (II)**

Syphilis. Clinical characteristics. Diagnosis. Clinical forms. Treatment.

Chancroid. Clinical characteristics. Diagnosis. Treatment.

Venereal lymphogranuloma. Clinical characteristics. Diagnosis. Treatment.

Inguinal granuloma.

### **Topic 10. Parasitosis and Zoonosis**

Leishmaniasis. Clinical characteristics. Treatment.

Most frequent lesions caused by insects.

Pediculosis. Clinical characteristics. Treatment.

Sarna. Clinical characteristics. Treatment.

## **III. Inflammatory and erythemato-squamous diseases**

### **Topic 11. Urticaria and angioedema**

Etiology. Classification of the different clinical forms of urticaria.

Diagnosis and treatment.

### **Topic 12. Eczemas.**

Clinical characteristics. Diagnosis.

Atopic dermatitis. Concept and etiopathogeny. Clinical forms. Complications. Treatment.

Seborrheic dermatitis. Clinical characteristics and treatment.  
Contact dermatitis. Differential diagnosis. Treatment.

### **Topic 13. Psoriasis**

Etiopathology. Clinical characteristics. Clinical forms. Diagnosis. Differential diagnosis.  
Principles of local and general therapeutics.

### **Topic 14. Lichen planus**

Concept. Etiopathogeny. Clinical characteristics. Diagnosis.  
Lichenoid reactions.  
Gibert's pityriasis rosea.  
Erythema figuratum.

### **Topic 15. Vasculitis**

Etiopathogeny and classification of vasculitis. Leukocytoclastic vasculitis.  
Diagnosis and treatment.  
Panniculitis. Etiopathogeny, diagnosis and treatment.  
Cutaneous manifestations of sarcoidosis.

## **IV. Cutaneous reactions due to external agents**

### **Topic 16. Photodermatosis**

Concept of photoallergy and phototoxicity. Most frequent clinical situations.  
Diagnosis and treatment.

### **Topic 17. Toxicodermatoses**

Concept. Etiopathogeny. Clinical forms. Diagnosis. Treatment.

## **V. Autoimmune-based diseases**

### **Topic 18. Autoimmune-based ampullary diseases**

Pemphigus group: pemphigus vulgaris, paraneoplastic pemphigus and other pemphigus variants.  
Clinical characteristics. Diagnosis. Treatment.

### **Topic 19. Autoimmune ampullary diseases with subepidermal blisters and other types**

Pemphigoid group. Acquired ampullary epidermolysis. Dermatitis herpetiformis.  
Clinical characteristics. Diagnosis. Treatment.  
Multiform erythema. Etiopathogeny. Clinical characteristics. Treatment.

### **Topic 20. Cutaneous manifestations of connectivopathies**

Lupus erythematosus.  
Sclerodermia. Morphea.  
Dermatomyositis.

### **Topic 21. Pigmentation changes**

Dyschromia.  
Congenital and acquired hyperchromia. Congenital and acquired hypochromia: vitiligo.

## **VI. Diseases of the pilosebaceous follicle**

### **Topic 22. Diseases of the pilosebaceous follicle**

Acne. Etiopathogeny. Clinical forms. Treatment.  
Rosacea. Etiopathogeny. Clinical characteristics. Diagnosis.  
Alopecia. Clinical forms: alopecia areata. Scar alopecia.

## **VII. Cutaneous lesions in hereditary diseases**

### **Topic 23. Genodermatosis: cutaneous manifestations**

Keratinization disorders: ichthyosis.  
Hereditary ampullary diseases.

Phacomatosis: Neurofibromatosis, Sclerosis tuberosa, Gorlin's syndrome, Incontinentia pigmenti, Epidermal nevus syndrome.

Hereditary connectivopathies: Pseudoxanthoma elasticum, Ehler-Danlos syndrome.

## VIII. Metabolic dermatosis

### Topic 24. Cutaneous manifestations of metabolic and carential diseases

Xanthomatosis. Clinical forms.

Cutaneous manifestations of diabetes mellitus.

### Topic 25. Porphyria. Pathogeny and classification

Porphyria cutanea tarda.

Congenital erythropoietic protoporphyria.

Congenital erythropoietic porphyria.

Hepatoerythrocytic porphyria.

Acute and mixed porphyria.

## IX. Cutaneous tumor pathology

### Topic 26. Cutaneous markers of internal neoplasia

Paraneoplastic syndromes.

### Topic 27. Most frequent benign cutaneous tumors

Fibromas, cysts, hemangiomas.

Histiocytosis. Mastocytosis.

### Topic 28. Cutaneous lymphomas

Cutaneous T-cell lymphomas: Fungoid mycosis, Sezary syndrome. Clinical characteristics. Treatment.

Cutaneous B-cell lymphomas. Clinical characteristics. Diagnosis. Treatment.

### Topic 29. Epithelial tumors

Epithelial precancer, muco-cutaneous precancer. Actinic keratoses. Leukoplasia.

Paget's disease.

Basocellular carcinoma. Clinical forms. Diagnosis. Treatment.

Squamous carcinoma.

### Topic 30. Benign and malignant melanocytic tumors

Melanocytic nevi.

Malignant melanoma. Epidemiology. Anatomoclinical forms. Diagnosis. Prognostic factors. Treatment.

---

## TEACHING STRUCTURE

---

### Theory classes:

30 theory classes corresponding to the topics described in section B.

### Practical clinical training:

2 weeks from 9am to 1pm in groups of 12-14 students.

The distribution of groups will be given at the Dermatology Service of the Hospital Clínic de Barcelona. Daily rotations should ensure that students gain a complete experience of clinical dermatology.

### Seminars:

Each clinical practice group will attend a daily seminar corresponding to the scheduled clinical teaching to ensure that all the necessary aspects of dermatology are covered.