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內文：

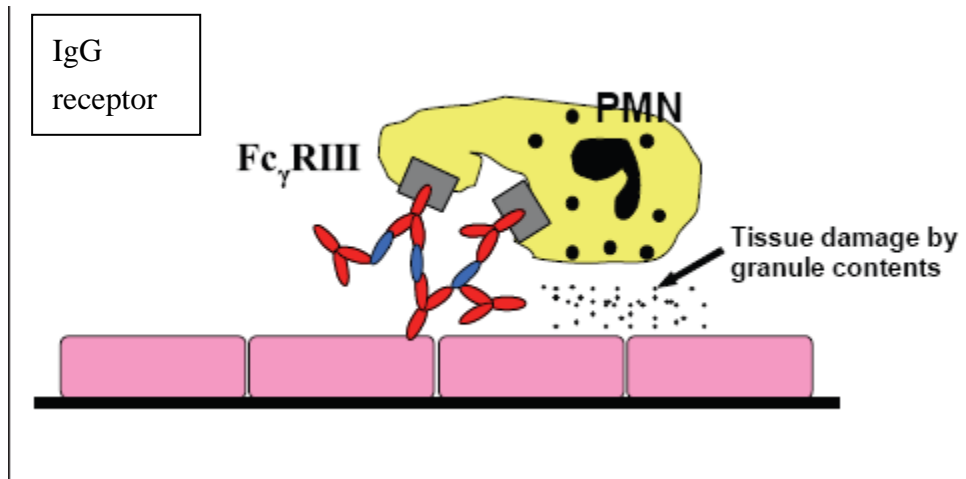
Abstract:

1. SLE(Systemic Lupus Erythematosus) is a chronic inflammation disease with far-reaching systemic implications.
2. Autoimmune rheumatic disease
3. Women (especially those in 30s and 40s) are affected more frequently.
4. It affects skins, joints, kidneys, lungs, nervous system, serous membranes (ex.pleura), mucous membranes, musculoskeletal, hematologic and other organs.

Pathogenesis:

1. Location, Ethnicity, Sunlight, Infections (ex.EBV), drugs.
2. May be generalized or organ-specific
3. Formation of soluble immune complexes (mainly IgG and IgM)
4. Because of the affinity of the antibody, the kidneys, lungs, and joints, are the most targeted.
5. Tissue damage is caused by platelets and neutrophils.
6. The lesion contains primarily neutrophils and deposits of immune complexes and complements(C3a,C4a,C5a)
7. Type III hypersensitivity reaction triggered by an endogenous antigen.

Type	Antibodies involved	Mechanism	Clinical examples
I	IgE	IgE bind to basophils and mast cells, releasing histamine, trypsin, arachidonic acid. Manifestations are local and systemic.	Conjunctivitis Asthma Anaphylaxis
II	IgG, IgM	Antibodies bind to cell surfaces, triggering immune response by complement activation.	Transfusion reaction Hashimoto's thyroiditis
III	Soluble IgG and IgM aggregates	Antibody complexes are deposited in various tissues such as skin, kidneys or joints, triggering immune response by complement activation.	Serum sickness Arthus reaction Systemic lupus erythematosus
IV	Cell-mediated immunity (delayed hypersensitivity)	Cytotoxic T cells (CD ₈) and helper cells (CD ₄) recognize antigen in a major histocompatibility complex, resulting in further macrophage-mediated proliferation of helper cells.	Contact dermatitis Temporal arteritis Transplant rejection



Clinical Presentation

- A. Constitutional symptoms:
 - a. Arthralgia (**earliest**, asymmetric and migratory)
 - b. Fatigue
 - c. Malaise
 - d. Myalgia
 - e. Arthritis (hands and tendons, painful, nondestructive)
 - f. Deformities (often due to tendon inflammation)
- B. Skins:
 - a. Malar, Butterfly rash
 - b. Generalized sun-induced rash
 - c. Epithelial atrophy
 - d. Hair loss (due to follicle plugged with keratin)
- C. Oral:
 - a. Desquamative gingivitis
 - b. Marginal gingivitis
 - c. Erosive mucosal lesions
 - d. Odontogenic and other head/neck infections with no obvious symptoms (due to a **reduced immune response**)
 - e. Temporomandibular joints disorder
 - f. Sjögren's syndrome (in advanced case)
 - g. Caries in p'ts with Sjögren's syndrome
 - h. Suboptimal oral hygiene (due to painful oral lesions)
- D. Neural systems:
 - a. Headache, Migraines
 - b. Depression
 - c. Seizures
 - d. Phychosis
- E. Renal disease:
 - a. Lupus nephritis
 - b. Chronic renal failure
- F. Respiratory systems:
 - a. Cough, rapid and shallow breathing (in active lung disease)
 - b. Chest pain due to deep inspiration
 - c. Pleural effusion
 - d. Pneumonia (especially hospitalized patients)



- G. Cardiac features:
 - a. Pericarditis
 - b. Endocarditis
 - c. Rheumatic valvular damage
 - d. Vasculitis (lead to multi-organ dysfunction)

SLE criterion	Definition or examples		
Malar (butterfly) rash	Fixed erythema over the malar eminences		
Discoid rash	Erythematous raised patches, may scar	Neurological disorder	Seizures Psychosis
Photosensitivity	Skin rash as a result of unusual reaction to sunlight	Hematological disorder	Hemolytic anemia Leukopenia Lymphopenia Thrombocytopenia
Oral ulcers	Often painless sores	Immunological disorder	Anti-DNA antibodies Anti-Sm antibodies Antiphospholipid antibodies
Arthritis	Nonerosive: Jaccoud's arthropathy	Antinuclear antibody	Antibodies to nuclear constituents
Serositis	Pleuritis — pleuritic pain, pleural rub, pleural effusion Pericarditis — ECG changes, pericardial rub, pericardial effusion		
Renal disorder	Proteinuria (with 3+ or more protein noted in urinalysis specimen or 0.5 g of protein/day) Cellular casts in urine		

One may have SLE if he/she meets any 4 of 11 criteria (simultaneously or in succession)

(American college of Rheumatology,1997)

Serologic tests:

- a. in suspected SLE patients

Antibody	Significance
Antinuclear antibody	Indicative of rheumatic diseases Not specific for systemic lupus erythematosus
Antibody to double-stranded DNA	Suggestive of systemic lupus erythematosus Predictive for renal involvement
Anti-Smith antibody	Predictive for renal involvement
Anti-Ro antibody	Suggestive of secondary Sjögren's syndrome
Antiphospholipid antibody	Increased risk of thromboembolism

Histopathology of Oral lesions

- a. similar with lichen planus and erythema multiform
- b. band-like subepithelial inflammation
- c. periodic acid-Schiff staining in the basement membrane zone
- d. Immunofluorescent testing shows immunoglobulin and complement deposition along the basement membrane zone in a granular pattern (character of Type III hypersensitivity)

Treatments:

- a. prevention, reversal of symptoms, maintaining states of remission and alleviation

- of symptoms
- b. Drugs:
1. Nonsteroidal anti-inflammatory drugs(NSAIDs)
 2. Cyclooxygenase-2 selective inhibitors (Cox-2 inhibitors)
 3. Antimalarials(ex. Chdroxychloroquine) for skin manifestation
→relieving musculoskeletal complaints and mild serositis
 4. Systemic corticosteroids (ex.prednisone) in patients with multi-organ involvement

Perioperative management by the dentists

- a. preventive dental care
- b. monitors for head and neck infections
- c. In SLE with thromboembolic events, careful managed with the anticoagulation therapy
- d. In SLE with renal dialysis, dental management should be planned one day after.
- e. Alteration in drug with renaltoxicity
(ex.tetracyclines, Cephalosporins, Antifungals, NSAIDs, Penicillins)
→Acetaminophens, Narcotics, Clindamycins
- f. Attentions with drugs interactions

Prognosis:

- a. Variable
- b. Death due to SLE was 5 times higher in women than in men, 3 times higher in black than in white.
- c. Multi-organ infections or lupus-related immunosuppression.

Conclusions:

- a. SLE can run varied clinical course, ranging from a relative benign illness to a rapid progressive disease, with fulminant organ failure to death.
- b. Dentists should be aware of the clinical S/S and keep the good oral hygiene , closely follow up with dental and oral infections, and assist with the diagnosis of mucocutaneous lesions of the head and neck.

題號	題目
1	在 SLE 的病人中，約有 50% 會因此造成腎臟功能的影響，請問在這些病人上如果要使用抗生素，下列何者較為理想? (A) Penicillins (B) Tetracycline (C) Clindamycins (D) Cephalosporins
答案(C)	出處：Oral and Maxillofacial pathology edi.2 p.689
題號	題目
2	對 SLE 的病人做免疫螢光的測驗，常會發現 lupus band test(+)下列何者不是這項測驗中常發現的物質? (A) IgG (B) IgM (C) Complement components (D) IgE
答案(D)	出處：Oral and Maxillofacial pathology edi.2 p.692