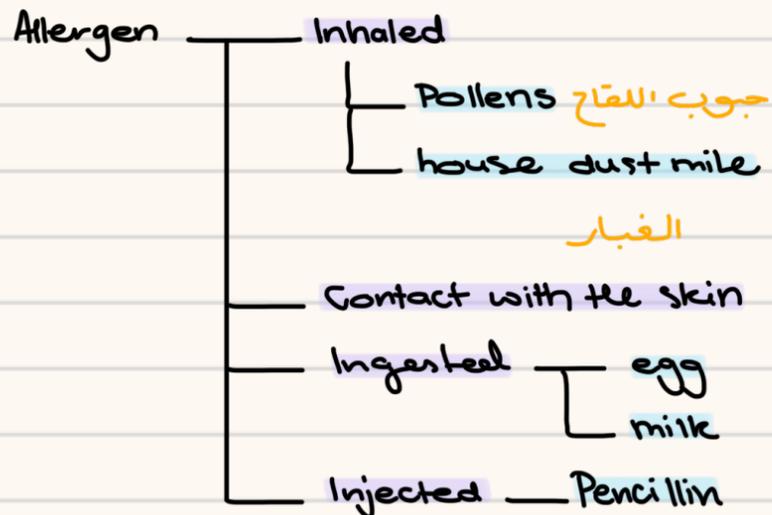


Hypersensitivity

Raghad Janis Tayfour

Type 1

Allergy / Atopy



Main Antibody — **IgE**

Main cell(s) — Mast cells
Basophils
Eosinophils

2 Phases — Immediate reaction:

within minutes and ends

within hours

Clinically:

Contraction of smooth muscles

(Respiratory + GIT)

Vasodilation (Histamine by mast cells)

↑ Mucous production

Pruritus (قحا)

Type 2

Antibody mediated

Antibodies are working against

Antigens that are present on the

Cell surface



Cell destruction / dysfunction

Main Antibodies — **IgG, IgM**

Main Cell(s) — Not mentioned

Examples

Mismatched Blood Transfusion

Autoimmune haemolytic anemia

Goodpasture syndrome

↳ Lung + kidney

Type 3

Immune complex mediated

Soluble Antigens

(Not bound to cell surfaces)



Soluble antigens

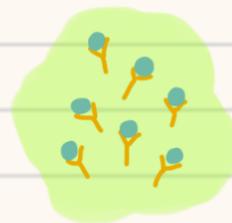
+



Antibodies

(In the circulation)

=



Immune complexes

بتراكم بالأعضاء ويتسبب

وبتسبب مشاكل

Inflammation + tissue damage

Main Antibodies — **IgG, IgM**

Same as type 2

Main Cell(s) — Neutrophil

Examples

Autoimmune disease

Serum sickness

Arthus reaction

recheck slide 11

Type 4

Delayed Hypersensitivity

• Not Antibody mediated

- Like the rest, types 1,2,3 -

• T-cell mediated

Memory T-cells produce cytokines

that activates Macrophage &

Cytotoxic T cells



Granulomatous inflammation

Examples

Tuberculin skin test (Mantoux)

Contact dermatitis

حساسية الجلد

from Nickel /

latex / dental resins

Late phase:

Starts 2-24 h later

Examples

Urticaria حساسية الجلد

Allergic Rhinitis حساسية الأنف

Allergic Conjunctivitis حساسية العين

سُبْحَانَ اللَّهِ وَبِحَمْدِهِ

سُبْحَانَ اللَّهِ الْعَظِيمِ

