

Diabetes Mellitus

Drug induced → steroid
thiazide
phenytoin
infection → Cong. rubella
mumps.

أقسام = مع الأنسولين ← جلوكاغون
علاج لـ insulin resistance.

Type 1

Absolute insulin ↓
destruction of β cells

✓ insulin
lipolysis ptolysis
glycogenolysis gluconeogenesis
palm synth. & lipogenesis

IDDIM
insulin dependent DM

polydipsia
polyuria
weight loss
hyperglycemia
ketonemia / ketonuria

DKA

abd. pain
N & V
Kussmaul breathing
Fruity breath odor (Acetone)
↓ cognitive function
coma.

Cerebral edema
metabolic acidosis
electrolyte imbalance
→ hyperkalemia

MODY
maturity onset DM of youth
secretion ↓ or insulin not production

AD monogenic DM
mild persistent
DM in at least 3 generations
II + not obese
I + no DKA (honey moon phase)
< 25 years

LADA
Latent autoimmune diabetes of Adult

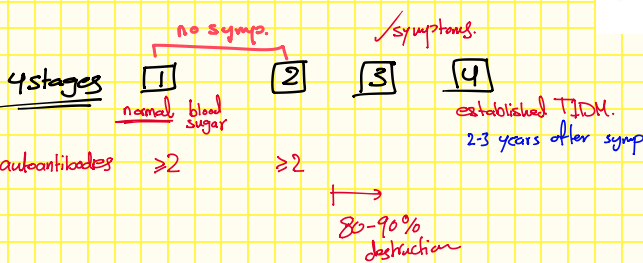
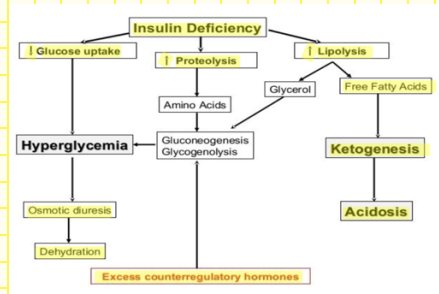
Type 1 / in adult
milder ↓ DKA risk.

Type II
Insulin resistance

* postpuberty
* obese
DKA LessSSS

polydipsia polyuria → absent
or present few weeks to months

Etiology → Genetic → HLA DR3
DR4
DQ2
DQ8 → celiac
* screening 8 months → years before symptoms
auto ab to β cells
GAD anti-glutamic acid decarboxylase
ICA
IAA
ICA512



Fasting plasma glucose ≥ 126 mg/dL
2h plasma G during OGTT ≥ 200
Sym + Random ≥ 200 mg/dL
HbA1C ≥ 6.5%
Follow up: 3-4 times/year
↓ ↓ microvascular
False low → hemolytic anemia, pure red cell aplasia, bland thromb, plp dis treated by EPO, anemia → Hge, coarctosis, myelodysplasia.

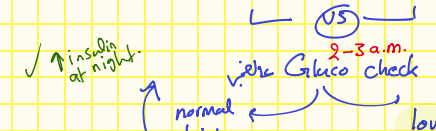
Hypoglycemia

سرعة انسولين زائدة
سرعة سكرية بساياتل
* لالاق كثر بونظرا
pallor sweating
hunger tremor tachycardia drowsiness
seizure coma
> 10 min ⇒ permanent brain damage.

✓ In hospital → Dextrose 4ml/kg
W → juice (50gm glucose)
W → Glucagon injection.

Early morning hyperglycemia

Dawn phenomenon
Somogyi phenomenon
Counter-regulatory H. ↑ pulses
↳ GH
physiological / Not severe?
Hyper (2ry) to hypo
اختنا سرعة الدم في الصباح في الأنسولين
hypo during sleep
counter reg. H.
exaggerated hyper



X hypoglycemia

DM1

~~oral~~
unconscious.

Glucagon

to release glucose
IM/SC

9

DM1

initial Tx → insulin therapy.

↓ Thyroid ↑ Celiac.

obesity H ⇒

Ghrelin → hunger H
Leptin → Satiety H.

MCC → life style.
↔ DM2

Conventional regimen ^{فوق الجاهز في الانسولين} ^{تحت الجاهز في الانسولين}

Intensive regimen ^{MDI multiple daily injection} ^{CSII continuous SC insulin infusion (pump)} ^{good long term control.}

Insulin	onset	duration	ex.
Rapid acting :-	15-30 min	3-4 hr	lispro / aspart
Short acting	30-60 min	4-6 hr	regular insulin
Intermediate acting	2-4 hrs	14-16 hr	NPH Lente.
Long acting	1-2 hrs	24 hrs	Glargin