

## Endocrinology CBL 3: Diabetes Mellitus

**Learning Objective** The student should be able to

1. Describe the secretion and regulation of insulin
2. Identify deficiency of insulin on basis of symptom
3. Describe the pathogenesis Diabetes Mellitus
4. Identify the anatomical structure involved.

### **Case**

A 45 years old female was trialed for recurrent urinary trail intentions by her general phylum in last few months

Recently she noticed that she sing weight her cloths getting loser she also developed polyphagia, polyuria and polydypsia. She is also heaving difficulty with vision.

For these complains she came to out patient department to see the physician. She mentioned about family history of hypothyroidism.

(e.g. 45 year old male presented with polyurea, polydipsia, poly phagia, Fasting bl glucose levels on two occasions >150 mg%.)

### **On Examination**

Body Weight: - 70kg

Blood Pressure: - 140/90

WBC: -

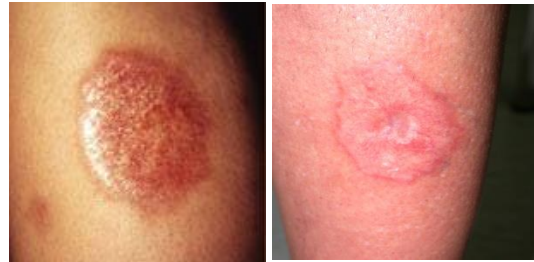
PLT: - 150

Hb: - 13g/L

Fasting Blood Sugar: - 170mg%

Fasting Cholesterol:-270mg%

Hb A1c:- 13.7 %



### Laboratory Results from PCP appointment:

#### *Pertinent Normals and Abnormals:*

- Fasting serum glucose - 251 mg/dL (high)
- HbA1c - 13.7% (high)
- BUN - 12 mg/dL (normal)
- Creatinine - 1.1 mg/dL (normal)
- CO2 - 20mEq/L (low)
- Anion gap - 13 mEq/L (normal)
- TSH - 2.72 IU/L (normal)

### In-office Lab from First Appointment with Diabetes Spe Team:

- Dipstick Urinalysis:
  - Specific gravity – 1.030 (normal)
  - Ketones – 4+ (high)
  - Glucose – 2000+ (high)
  - Protein – small amount (abnorm)
- Random fingerstick glucose – 395 mg/dL (h