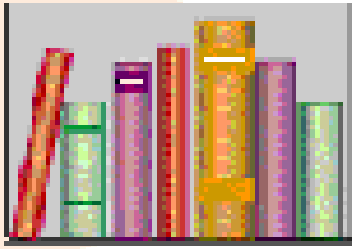
Diabetes Melltius

The patient with DIABETES ; MELLITUS



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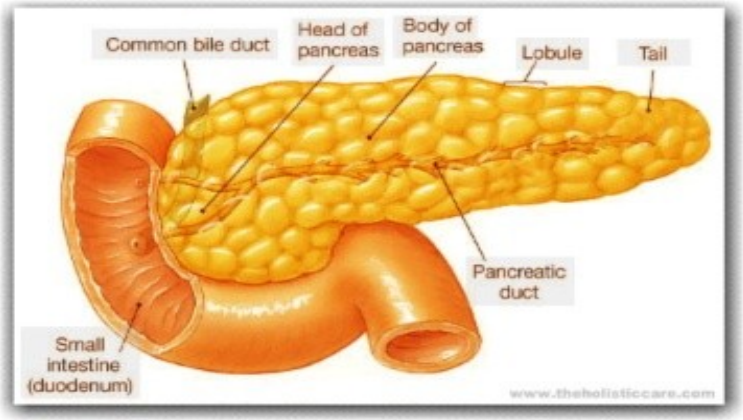
Diabetes Mellitus:

Diabetes mellitus is a disorder in which blood sugar (glucose) levels are abnormally high because the body does not produce enough insulin

Insulin:

A hormone produced by pancreatic beta cell of the islands of langerhans ,control the level of glucose in the blood by regulating the production and storage of glucose . in diabetic state, the cell may stop responding to insulin or the pancreas may stop producing insulin.



Classification of diabetes and etiology:

*type 1 ;

Previously known as (insulin dependent diabetes mellitus) or juvenile diabetes, diabetes appears usually in an individual under age 20 &requires exogenous insulin, Etiology includes genetic, immunologic or environmental factors (e.g. virus).

*type2;

Previously referred to as (non insulin diabetes mellitus)or adult onset diabetes after age 35 to 40 and usually in patients who are overweight,

Etiology includes obesity, hereditary or environmental factors .

*gestational diabetes :

Occurred in about 2-5% of all pregnancies due to hormones secreted by the placenta which inhibit action of insulin treated with diet and if needed insulin.

Diabetes mellitus associated with other condition or syndromes :

1- this is found in a small minority of patients which can be attributed to infection of the pancreas, chronic pancreatitis and pancreatic tumors, pancreatectomy, or other diseases such as acromegaly .

2- medication such as corticosteroid

What are Diabetes signs and ;Symptoms

:Hypoglycemia

Sweating, tremors, tachycardia, palpitation, ,nervousness .hunger

:Hyperglycemia

Hypotension, profound dehydration, tachycardia, alteration of sensorium, seizures, hem .paresis

Diagnostic tests:

1.fating blood giucose level above 140mg\dl or post prandial tow hours after ingestion of food above 200mg\dl measured on more than one is diagnostic .

2. glycosylated hemoglodin (A1C) reveals an elevated blood glucose level over the previous 2 to4 months .

3. glucose tolerance test reveals blood glucose over 200mg\dl at the 2-hour sample.

4. urine analysis glucose & ketones.

What is the impact of diabtes?

Over time, diabetes can lead to blindness, kidney failure, and nerve damage. Diabetes is also an important factor in accelerating the hardening and narrowing of the arteries (atherosclerosis), leading to strokes, coronary heart disease, and other blood vessel diseases.

Diabetic management;

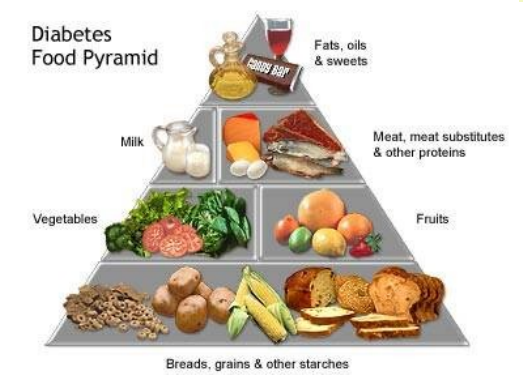
1)nutritional management

2)exercise

3)monitoring

4)education

5)pharmacological therapy



1)Diet:

Goals of diet therapy are to;.

*meeting energy needs.

*maintain blood glucose levels as close to normal as possible.

*decrease blood lipids level if elevated.

Diet prescription:

*Caloric requirements based on patient age, sex, height, weight, life style activity, working hours, likes & dislikes, insulin requirements .

Calories are distributed into CHO, FAT& PROTEINS.

* Caloric intake is prescribed by using a table of ideal weights that considers, age, sex, body build ;physical activity.

* Encourage patient to eat complex CHO as Cereal, bead, rice, spaghetti.

Vegetables &fruits are advised since they are more slowly absorbed &also contain essential vitamins & minerals.

Patient should not eat;

Sucrose, soft drinks, candy, honey, jams, syrups, cakes, pasta.

Proteins;

Protein calories comprise about 10-20% of the diabetic diet.

Fat;

About 20-30% of the diabetic diet.

2)Exercises;

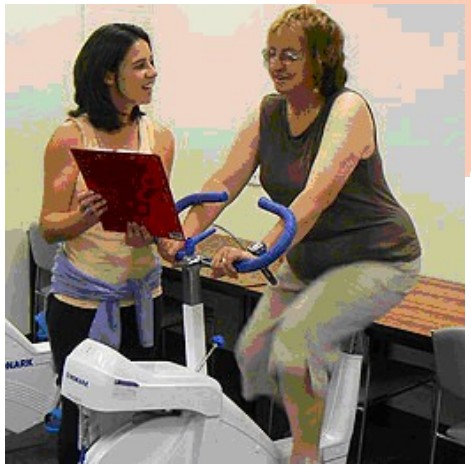
Regular exercise lowers blood glucose level by increasing the uptake of glucose by body muscle and by improving insulin utilization and weight reduction.

General precautions for exercise in diabetes;

-Use proper foot wear .

-Avoid exercise in extreme heat or cold.

-inspect feet daily after exercise.



3)insulin;

Treatment with insulin can achieve:

-Good metabolic control for type 1 diabetes.

-Prevent ketosis.

-Prolong patients life.

4)Education:

A-Nursing role towards the diabetic patient.

-Assessing self-care skills, providing basic education.

-Reinforcing teaching provided by the specialist.

-Referring patients for follow up after discharge.

B-Monitoring of glucose & ketones.

-Self monitoring of blood glucose level.

-Urine testing for glucose &ketones

C-Foot care;

1)take care of pt diabetes.

2)inspect pt foot every day.

3)wash pt foot every day.

4)keep the skin soft and smooth.

5)smooth corns and calluses gentlv.

6)trim pt toenails each week of we when needed.

.7wear clean cotton hose ,they are
.comfortable and absorb moisture
.8 . prevent feet from getting cold
.9avoid applying heat pads to the
.feet or legs
.10.protect your feet from hot or cold
.11.cut nails straight across
.do not go barefoot.12
.inspect feet daily for trauma.13
.avoid soaking the feet in water.14
.15.avoid shaving the callus
.16.avoid wearing open-toes shoes

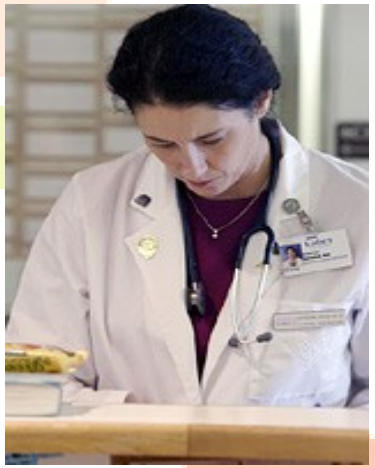
(17wear shoes and socks at all .times

(18protect pt foot from hot and .cold

(19keep the blood flowing to pt .foot

(20.check with doctor

* have your doctor check your bare foot and find out whether you are likely to have serious foot problem, remember that you may not feel the pain of an injury



- call your doctor right away if a cut ,
- sore, blister, or bruise on foot does not begin to heal after one day.

* Follow your doctor’s advice about foot care.

* Do not self-medicate or use home remedies or over-the-counter agents to treat foot problems.

D-Patient teaching for self-injection of insulin;

1)show patient how to fill the syringe and measure the right dose of insulin.

2)Ask pt to pull the skin or form a skin fold.

3)Insert needle tip into subcutaneous tissues.

.

4)Systematic rotation of injection site to prevent local reactions.

5)Each injection site separated from other by 2-5 cms.

6)Sites of injections & rotation

E-How to use an insulin pump:

The pump can be attached on a belt to the pt abdomen . Needle is inserted into the abdomen . The pump is programmed in such a way that insulin is pumped into the body ; on a basal rate of infused at a rate of 0.5 to 2.0 units/hr then prior to each meal pt activates the pump to deliver a "bolus" dose of insulin by pushing of buttons.

Nursing diagnoses ;

1)fluid volume deficit related to polyuria &dehydration.

2)Altered nutrition less than body requirement related to imbalance of insulin, food& physical activity .

3)knowledge deficit about self care skills and information.

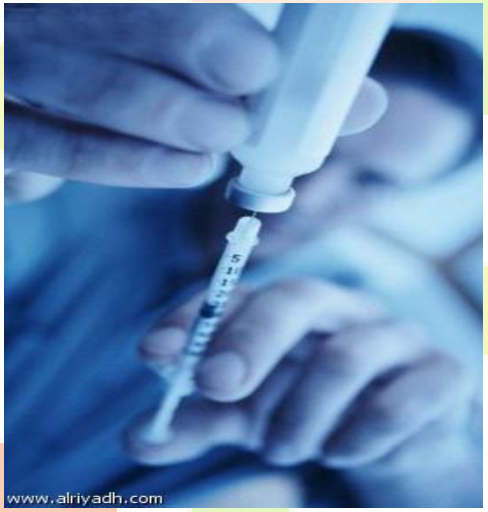
4)Anxiety related to loss of control, fear of inability to manage diabetes.

5)High risk for impaired skin integrity related to lack of sensation (due to neuropathy), susceptibility to fungal infection.

6)Potential for infection related to decrease resistance.

7)Potential non compliance related to the complexity of adhering to the prescribed regimen.

Textbook of medical- surgical nursing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