Unit 2 : Special Examinations

Welcome again. Let's continue doing tasks 6 + 7

Case 3

- Miss Grace Donaldson

Doctor: From your symptoms it would seem that you have an **overactive thyroid gland**. We can test this quiet simply by doing a blood test to check the level of **hormones** in your blood.

Brief case notes

SURNAME Donaldson		FIRST NAMES Grace
AGE 23	SEX F	MARITAL STATUS S
OCCUPATION Schoolteacher		
PRESENT COMPLAINT agitation, difficulty in sleeping, ↑appetite, ↓ wt		
O/E General Condition warm, sweaty skin, tachcardia, soft goitre with bruit		

List of investigations (tick only the most appropriate ones)

Angiogram	
Serum thyroxine	√
CAT scan of the skull	
TSH	√

Term	Definition	Arabic translation
Overactive	too much active	فرط نشاط
Thyroid gland	an endocrine gland in the neck, which is activated by the pituitary gland and secretes a hormone which regulates the body's metabolism	الغدة الدرقية
Hormone	a substance which is produced by one part of the body, especially the endocrine glands and is carried to another part of the body by the bloodstream where it has particular effects or functions	هرمون

S	single	أعزب
Agitation	a state of being very nervous and anxious	هياج
Appetite	the feeling of wanting food	شهيّة
wt	weight	الوزن
Sweaty	covered or damp with sweat	مبتل بالعرق
Tachycardia	a rapid beating of the heart	تسرّع القلب
Soft	not hard or not resistant to pressure	
Goitre/Goiter	an excessive enlargement of the thyroid gland, seen as a swelling round the neck, caused by a lack of iodine	تضخم الغدة الدرقية
Bruit	an unusual noise heard through a stethoscope	نفحة
Angiogram	an X-ray picture of blood vessels	صورة وعائية
Thyroxine	a hormone produced by the thyroid gland which regulates the body's metabolism and the conversion of food into heat	هرمون الدرق أي التيروكسين
CAT scan	computerized axial tomography	تصوير طبقي محوري
Skull	the eight bones which are fused or connected together to form the head, along with the fourteen bones which form the face. Also called cranium	الجمجمة
TSH	thyroid stimulating hormone: a hormone secreted by the pituitary gland which stimulates the thyroid gland	الهرمون المحفز للدرق

What's meant by agitation? What does it cause?

Agitation is a state of being very nervous and anxious. It causes tiredness, difficulty in sleeping, and weight loss.

Note:

Agitate (v.) يثير أو يقلق means also to stir يحرّك.

What's the strange thing about this case?

The high appetite, because people who suffer from agitation usually lose their appetite. Anyway, she is eating a lot but still suffering from weight loss.

What's the inability to sleep called?

It's called Insomnia الأرق.

What's an appetite?

It's the feeling of wanting food.

Can we say that this patient has fever?

No, because her skin is just warm دافئ.

Define skin.

It's the largest organ in the body that forms the outside surface of the body.

Where does sweat come from?

From sweat glands. We call them "the cooling system of the human body".

What's skin graft زراعة الجلد?

A layer of skin transplanted from one part of the body to cover an area where the skin has been destroyed (damaged or burned).

When does skin turn brown?

When it's exposed to sunlight.

What's tachycardia?

A condition where the heart beats rapidly.

What are the types of tachycardia?

Nodal tachycardia تسرع القلب العقدي: a sudden attack of rapid heartbeats.

Simple tachycardia تسرع قلبي بسيط : rapid beating of the heart caused by stimulation of the sinoatrial node.

Define the thyroid gland.

A gland lying in the neck, producing thyroxine, using iodine and it has an important role in metabolism.

How is the thyroid gland activated?

By TSH which is excreted by the pituitary gland.

What's meant by goiter?

An excessive enlargement of the thyroid gland, seen as a swelling round the neck, caused by a lack of iodine.

Can Thyroid be surgically removed? What's the procedure called?

Yes. It's called thyroidectomyاستئصال الدرق.

Note :

The suffix –ectomy = surgical removal of a segment or all of an organ or part e.g: prostatectomy “of the prostate gland”.

What do we call the inflammation of the thyroid gland?

Thyroiditis التهاب الغدة الدرقية.

What are the types of thyroidism تدرق- نشاط الدرق?

Hypothyroidism قصور الدرقية : underactivity of the thyroid gland (releasing little amounts of thyroid hormones).

Hyperthyroidism فرط نشاط الدرق: a condition in which the thyroid gland is overactive (releasing large amounts of thyroid hormones)

What’s bruit ?

An unusual noise heard through a stethoscope.

What’s an angiogram?

An X-ray picture of blood vessels.

What's CAT scan? (and the professor wondered: cat or dog X_X)

It's Computerized Axial Tomography. A system of examining the body in which a narrow X-ray beam شعاع, guided by a computer, photographs a thin section of the body or of an organ from several angles عدة زوايا, using the computer to build up an image of the section. It's clearer than X-ray.

What's meant by tomography تصوير مقطعي ?

The scanning of a particular part of the body using X-rays or ultrasound.

What does the skull consist of?

It consists of 8 fused cranial bones that form the head & 14 facial bones that form the face.

Case 4 • Mr. Pritt

Doctor: Because you've been having this trouble with abdominal pain after fatty foods I think you may have some **stones** in your **gall bladder**. You'll need to have a special x-ray done. This is called a **cholecystogram**, and it will involve you taking some **tablets** before attending the x-ray department. They'll take an **ordinary** x-ray first and then give you something fatty to eat. After which they'll take pictures of the gall bladder area to see if your gall bladder is working properly and if there are any stones **present**. They may also do an ultrasonograph. This is a way of examining your abdomen using a special machine which can show us pictures of your stomach and gall bladder using **sound signals**. It's not painful at all and it doesn't take more than five or ten minutes to perform.

Brief case notes

SURNAME Pritt		FIRST NAMES William
AGE 44	SEX M	MARITAL STATUS D
OCCUPATION Printer		
PRESENT COMPLAINT abdominal pain after eating fatty foods		
O/E General Condition obese ++, tender R hypochondrium		

List of investigations (tick only the most appropriate ones)

Cholecystogram	√
ECG	
MSU	
Endoscopy	
Barium meal	
Abdominal ultrasound	√

Term	Definition	Arabic translation
Stone	a hard mass like a little piece of stone, which forms inside the body, also called calculus	حصوة
Gall bladder	a sac situated underneath the liver, in which bile produced by the liver is stored	الحويصل الصفراوي (المرارة)
Cholecystogram	an X-ray photograph of the gall bladder	صورة شعاعية للمرارة
Tablet	pill	قرص دواء
Ordinary	usual, normal	اعتيادي
Present	existing	موجود
Sound signals	_____	أمواج صوتية
D	divorced	مطلّق
Obese	so overweight as to be at risk of several serious illnesses	سمين
Tender (adj.)	referring to skin or a body part which is painful when touched	مؤلم عند اللمس

R hypochondrium	The right upper lateral portion of the abdomen situated beneath the lower ribs	المراق الأيمن
MSU	midstream specimen of urine	نوع من تحليل بول
Abdominal ultrasound	taking ultrasound photographs of the abdomen	تصوير البطن بالأمواج فوق الصوتية

What's pain?

It's an unpleasant sensation due to abnormal conditions in the body.

Is pain important? Why?

Yes it is. Because pain is the method by which a person knows that a part of the body is damaged or infected.

What are the types of pain?

Acute pain الم حاد: sharp and intense pain.

Chronic pain الم مزمن : serious pain.

Labour pains الام المخاض the pains felt by a woman during childbirth.

What are some causes of abdominal pain?

Catching a cold, indigestion, menstruation, and more serious conditions in the body such as gallstone.

What is fat?

A white oily substance in the body.

What are the sources of fats?

Animals & vegetables.

What is the function of fat?

Storing energy & protecting the body against cold.

What are the types of fat?

Saturated and unsaturated fats الدهون المشبّعة و غير المشبّعة.

Compare:

Saturated fat	Unsaturated fat
fat which has the largest amount of hydrogen possible	fat which does not have a large amount of hydrogen
it's hard to break it down	can be broken down more easily
comes from animals	comes from plants

Is fat an essential substance in the body? Why?

Yes it is. It supplies the body with energy when needed because it stores energy.

What can excessive fat intake lead to?

It can lead to obesity because excess fat accumulates under the skin and around organs in the body.

What are the causes of obesity?

- Hereditary causes أسباب وراثية.
- Over eating.
- Glandular disorders اضطرابات غدّية .
- Digestive disorders as in this case; a gallstone that leads to difficulties in digesting fatty foods.

What may obesity lead to?

It may lead to diabetes, heart diseases such as atherosclerosis, high blood pressure, etc.

Note:

Both are correct: gallbladder & gall bladder.

What's the function of the gall bladder?

Storing the bile excreted from the liver until required by the stomach.

When is bile secreted from gall bladder?

When the stomach requires it by sending electrical messages via nerves (if fatty food is present in the stomach, bile moves from the gall bladder along the bile duct to the stomach).

What is the main function of bile?

Digesting fatty foods.

What's the colour of the bile?

Brownish yellow.

How does bile taste?

It tastes bitter مر.

Note:

- Stone = calculus
- Stones = calculi

What's a gallstone حصية مراريّة ?

It's a small stone formed from insoluble deposits from bile in the gall bladder.

What are stones (calculi) formed of?

Calculi are formed of cholesterol and various inorganic substances.

When is a gallstone dangerous?

It's dangerous when it blocks the bile duct.

Note :

Gallstones = stones in the gall bladder :O (DUH!)

Is it easy to remove stones from an organ or do we have to remove the whole organ?

Nowadays it is easy to remove stones from an organ (either by the use of ultrasound or surgically) so there is no need to remove the organ itself.

- ***If the gall bladder is removed what organ could substitute it? Why?***

The Liver because it also secretes bile directly into the duodenum.

- ***"I think you may have some stones in your gall bladder" what does this suggest to you?***

That the physician isn't sure. He suspects gallstones, so, his initial diagnosis is Gallstones.

- ***"You'll need to have a special x-ray" what does this suggest to you?***

That a typical X-ray doesn't show the stones in the gall bladder.

- ***"You'll need to have a special x-ray done" What does this suggest to you?***

The patient cannot do this procedure by himself, a radiographer فني الأشعة does it.

- ***What is a cholecystogram?***

An X-ray photograph of the gallbladder.

- ***"it will involve you taking some tablets before attending the x-ray department" What's the function of those tablets taken before cholecystogram?***

They contain radiopaque substances that absorb radiant energy.

- ***"They'll take an ordinary x-ray first and then give you something fatty to eat" Why is something fatty given for patients before having a cholecystogram?***

To determine if the gall bladder is functioning well or not. In other words: to differentiate between healthy condition and illness.

- ***"After which they'll take pictures of the gall bladder area" Who are they?!!***

The staff of the X-ray department (nurse, radiographers, etc.).

Differentiate:

- Present (adj.) = existing.
- Present (n.) = gift.
- Same spelling but different pronunciation (called stress shift).

- ***"They may also do an ultrasonograph" Can you detect a mistake in the sentence?***

Yes. It should be "They may also do an ultrasonography" .

An example of reassuring:

"It's not painful at all and it doesn't take more than five or ten minutes to perform".

Note:

Tender also means soft & sensitive (it means painful as in our context).

What's Hypochondrium?

The right upper lateral portion of the abdomen situated beneath the lower ribs and above the umbilicus.

What's an MSU?

A sample of urine collected in a sterile bottle in the middle of a flow of urine, because the first part of the flow may be contaminated with bacteria from the skin.

Note:

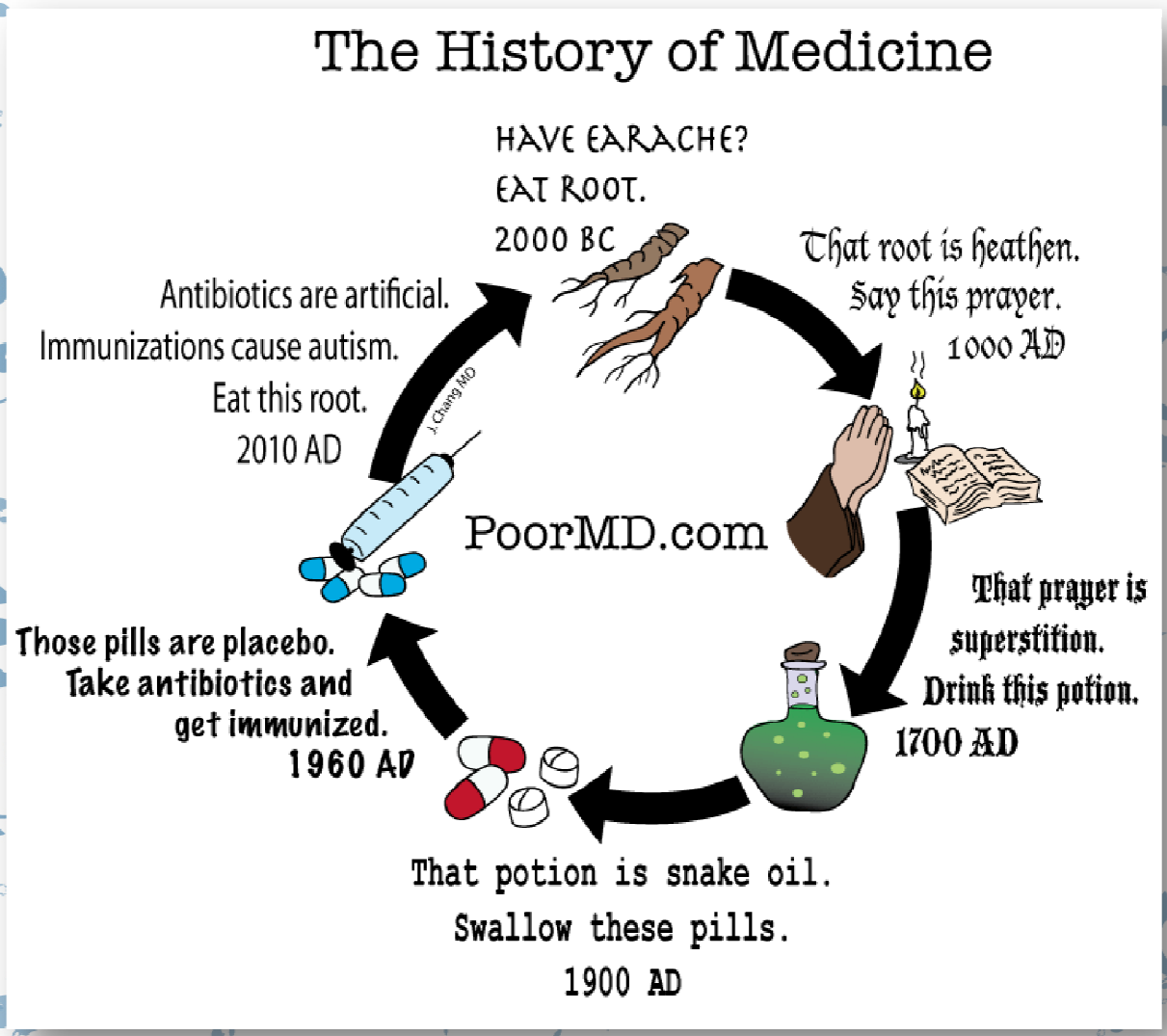
We won't discuss ECG, endoscopy, or barium meal now. We discussed them previously.

Notes:

- ✓ Concerning marital status:
  S = single, M = married, W = widowed, D = divorced, Sep. = separated.

- ✓ Many words have two correct spellings such as:
  Anaemia / anemia
  Anaesthetic / anesthetic
  Haemoglobin / hemoglobin
  Goitre / goiter
  Gall bladder / gallbladder
  Esophagus / oesophagus

- ✓ We learnt many synonyms during our study like:
  Esophagus = gullet
  Chest = thorax
  Umbilicus = navel
  Stone = calculus
  Large intestine = bowels
  Skull = cranium
  Brain = cerebrum
  Sternum = breast bone
  Clavicle = collar bone

- ✓ The word “thyroid” is the same as thyroid gland.

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