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PAPER CLINICAL MEDICINE

QUESTION NO 1

ANSWER :- TREATMENT

→ The role of Nuclear medicine is directly involved in both diagnosis and treatment of thyroid disease.

→ Thyroid scintigraphy should be used as the Imaging modality of choice for assesments of thyrotoxicosis,

since it demonstrates the functional state of thyroid gland.

- An adequate understanding of the pathophysiological mechanisms and characteristics of the patient is essential as well as the different treatments of thyroid disorders that present with hyperthyroidism multinodular goiter, and toxic Adenoma
- Therapeutic modalities include antithyroid drugs are the first line of therapy and regarding the use of radioiodine current recommendations consider it is a safe and effective therapeutic alternative in hyperthyroidism.

- Finally we highlight the existence of some special situation childern, pregnancy, thyroid eye disease chronic renal failure and dialysis patient

ROLE OF RADIOPHARMACEUTICALS

- Radiophalmaceuticals are substances that contain one or more radio-isotopes (radionulides) They are nonencapsulated sources of artifical ionizing radiation, which are use for both diagnostic and therapeutic medical applications in the field of Nuclear

Medicine.

- Important to mention some important characteristics such as the type of radioactive emission gamma photons, alpha beta particles mix with emission of gamma photons and charged particles), energy measured in (kev). (T/F)

- that helps to know and properly choose the type of radiotracer that should be use all times.

- Radioiodine Isotopes and 99m Tc pertechnetate (TcO_4^-) are most commonly used for thyroid imaging

CLINICAL PRESENTATION

- cervical examination is important
- palpation of the thyroid gland should be done with the patient (sitting) never in supine position
- helping with swallowing movements.
- must be careful in searching for possible goiters and their correlation with size
- palpation of thyroid nodules / or adjacent adenopathies.
- necessary to pay attention to the size and weight of the patient

heart rate, blood pressure, menstrual changes in cases of women of Childbearing age etc.

About Psycho-neurological manifestations we have to highlight detected cases of tremors, Chorea, myopathy, myasthenia gravis, ophthalmopathy etc

Some laboratory alterations in addition to the thyroid profile such as high blood sugar, low Cholesterol or calcium phosphorus, can be visualized (osteoporosis)

- definitive diagnosis can be more challenging in pregnancy

QUESTION NO 2

What do you know about Polycystic kidneys? explain in detail.

ANSWER:-

- Polycystic kidney disease is an inherited kidney disorder.
- It causes fluid filled cysts to form in the kidneys
- Polycystic kidney disease may impair kidney function and eventually cause kidney failure
- Polycystic kidney disease is the

fourth leading cause of kidney failure.

- people with this disease may also develop cysts in the liver and other complications.

SYMPTOMS OF POLYCYSTIC KIDNEYS DISEASE

- many people live with polycystic kidney disease for
- years without experiencing symptoms associated with this disease
- cysts typically grow 0.5 inches or larger before a person start noticing symptoms.

Initial symptoms include with this disease

- pain in the abdomen
- blood in wine
- frequent wination
- wine track infection
- kidney stones
- skin bruses
- pale skin colour
- joint pain
- nail abnormalities

Symptoms in Childeln with this autosomd recessive (PKD)

- high blood pressule
- uTi infection
- frequent wination

CAUSES

- usually this disease is inhelited disease
- less commonly develops in people who have other seljous

kidney problems.

TYPES OF POLYCYSTIC KIDNEY DISEASE

- Autosomal dominANT
- Autosomal dominant is sometimes called adult polycystic kidney disease

- According to the National kidney foundation. it accounts for about 90 Percent of cases.
- Someone who has a palent with PKD has a 50 percent chance of developing this condition

Symptoms usually develop later in life, between the ages of 30 and 40.

- Some people experience symptoms in childhood.

AUTOSOMAL RECESSIVE

- Autosomal ~~ress~~ recessive is much less common than Autosomal dominant
- It also inhelited, but both palents must cally the gene for the disease
- There ale four types of Autosomal recessive polycystic kidney disease
  - pelinatal form
  - Neonatal form
  - infantile form
  - juvenile form

ACQUIRED CYSTIC KIDNEY DISEASE

- Acquired cystic kidney isn't inherited.
- It usually occurs later in life
- develop in people who already kidney problems

DIAGNOSES

- Abdominal ultrasound
- Abdominal CT scan
- Abdominal MRI scan
- Intravenous Pyelogram

COMPLICATIONS

- weakened areas in the walls of arteries known as aortic or brain aneurysms
- cysts on and in the liver.

QUESTION 3 (ANS)

LITHOTRIPSY → (breaking)

- lithotripsy is a medical procedure involving the physical destruction of haldened masses like kidney stones bezoars or glass stones.

- Electrohydraulic lithotripsy was introduced in the year of 1975
- laser lithotripsy was introduced in the year of 1980.

THERAPEUTIC

- lithotripsy is therapeutic because this procedure use for the treatment
- This procedure use for breaking stones inside the kidney
- patient will suffer from bleeding severe pain or urinary track infections

doctor will suggest lithotripsy in this case

GENERAL CRITERIA FOR PERFORMING LITHOTRIPSY

- Patient should remove clothing, jewellery or other objects that interfere in procedure
- gown to wear (gown should be given to patient)
- you may receive a sedatives or anesthetic agent to ensure that you remain still and pain free during the procedure.
- After the sedation has taken effect you will be positioned on a water filled tub.
- A sequence of shock waves will be created

to Shatter the kidney Stones

- The lithotripsy procedure should take about 45 minutes to 1hour.

AFTER THE PROCEDURE

After the surgery you will be taken to the recovery room for observation checking pulse rate or breathing.

you will follow the doctor instruction for your daily activities

- extra fluid should be taken.

QUESTION NO 4

SUFFIX OTOMY

Androtomy :- Dissection of humans

Bronchotomy :- that ensure there is an open airway between a patient lung and outside world

Coeliotomy :- A large through abdominal wall to gain access into the abdominal cavity.

Clitoridomy Plastic surgery of the clitoral hood.

Eschalotomy :- use to treat full thickness circumferential burns.

hysterotomy :- Incision into the uterus performing during caesarean section.

Laminotomy :- partial removal of laminae.

Laparotomy :- large incision through abdominal wall to access in abdominal cavity

MEATOTomy :- form of penile modification in which underside of the glass split

MYOTOMY :- procedure in which muscle cut

osteoTomy A bone is cut to shorten change into ligament.

PhleboTomy :- An incision in a vein with a needle

pulpoTomy :- Removal of a portion of the pulp including the disease aspect.

ThoracTomy :- incision into the pleural space of the chest

TRACHEOTOMY:- An incision of anterior aspect of the neck and opening a direct airway through an incision in the trachea

RADIAL KERATOTOMY:-
A refractive surgical procedure to correct myopia.

lobotomy Cutting or scraping away most of the connections to and form the prefontal cortex the anterior part of the frontal lobes of the brain.

CORDOTOMY:- procedures that disable selected pain.

CRICOTHYROTOMY:- An incision made through skin and cricothyroid membrane

FASCIOTOMY:- is a surgical procedure where fascia is cut to relieve tention or pressure

commonly to treat the resulting loss of circulation to an area of tissue or muscle.

QUESTION NO 5 ANSWER

URINARY TRACK INFECTION

- A ulinaly tract infection that effect the part of ulinaly tract.
- when it effect part lower part of the ulinaly it is known as bladder infection.
- when it upper ulinaly tract called kidney infection.

most infections invalve the lower ulinaly tract the bladder and uethra.

- women ale at the greater risk of developing a UTI than men

- Infection limited to your bladder can be painful and annoying. Sometimes selious consequences occur if a UTI spreads to your body.

CAUSES OF (UTI)

- UTIs ale usually caused by bacteria that enter the ulinaly track.
- bacteria enter through tube that calliels pee out of th body (uethra)
- women have a shoiten uethra tha men
- Theiefore women have chance to develop UTI because bacteiia more likely reach to the bladdei or kidney (due to short uethra

CAUSES

- pregnancy
- kidney stone disorder.
- constipation in child
- urinary catheters
- enlarged prostate gland (men)

SYMPTOMS:-

pain with urination, frequent urination
pyuria,
hematuria
fever,
pyelonephritis (flank pain)

DIAGNOSIS

- urinary tract infection can be diagnostic through microscopic examination of urine
- urinalysis
- urine culture

imaging technique - CT scan & MRI

TREATMENT

Antibiotics should given.

SIMPLE Infection

drugs for simple UTI
Trimethoprim, fosfomysin, ciprofloxacin etc.

RECQUENT INFECTION

- If you have frequent UTI your doctor may make certain treatment re-commendations such as antibiotics
- Self diagnosis and treatment if you start talk with your doctor

SEVERE INFECTION

for severe UTI you may need treatment with intravenous antibiotics in a hospital.