

OSCE IN PAEDIATRICS

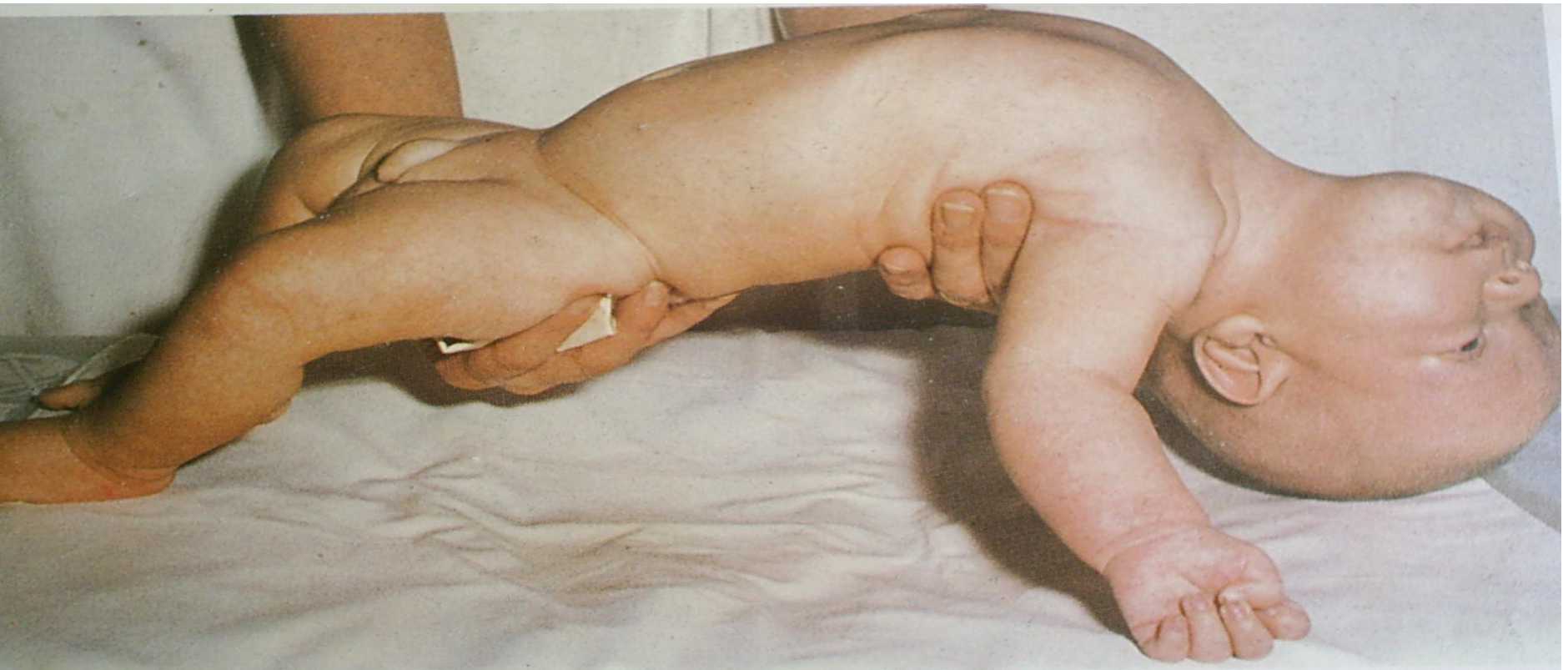
A 15 month old boy brought to Oni Memorial by his mother. He weighed 6.3kg but no other symptoms. Physical examination showed him to have edema of the legs, hyper- and hypopigmented skin and thin friable reddish hair.

- a. What is he suffering from?
- b. Which age group is most commonly affected?
- c. Name 2 causes for hepatomegaly in this child
- d. Skin and hair changes are constant features of the disease. T/F
- e. Hypothermia is a complication of this condition. T/F
- f. Muscle wasting is a prominent feature of this condition. T/F



Answer

- a. Kwashiorkor
- b. 1 – 3 years
- c. Fatty infiltration, oedema
- d. F (They are common not constant)
- e. T
- f. T



The infant felt floppy when handled by the nurse.

- a. Name 5 causes of such floppiness.
- b. What characteristic sign is seen.

ANSWER

- a. Congenital hypothyroidism, birth asphyxia,
- b. Head lag



- a. Name 3 clinical abnormalities visible in this 9 month old child
- b. What is the likely cause of this abnormalities?
- c. What is the treatment of choice?
- d. List 3 investigations
- e. List 4 complications of this condition

ANSWER

- a. Abdominal distension, dilated abdominal veins, jaundice
- b. Biliary atresia
- c. Hepatico-enterostomy
- d. Serum bilirubin, Duodenal intubation, Rose-Bengal test, Liver biopsy, USS
- e. Portal HTN, Cholangitis, Cirrhosis, GI bleeding

Biliary Atresia

- a. Is an acquired condition
- b. It is the commonest cause of liver related deaths in childhood
- c. Results in pale stools and dark urine
- d. It is associated with situs inversus
- e. Kasai procedure is required within the first 60 days of life

ANSWER

- a. T
- b. T
- c. T
- d. T (The congenital type)
- e. T



This child presented with 3 months history of progressive malaise, weight loss and nocturnal cough. The swelling was first noticed one month after the onset of symptoms. Examination revealed an unwell child with an enlarged inflamed right tonsil but no other abnormality.

- a. What is the most likely diagnosis
- b. Name 2 investigations that may be useful.
- c. List 4 differential diagnosis.
- d. Mention 4 drugs used in the management and 2 side effects of each

ANSWER

- a. TB Adenitis
- b. Mantoux test, Chest X-ray, Excision Biopsy
- c. Pyogenic adenitis, Fungal infection, Hogkins Lymphoma,
- d. Rifampicin – hepatotoxicity, discolouration of all body secretions
Ethambutol – Optic neuritis, hepatotoxicity
Isoniazid – peripheral neuritis, Hepatotoxicity
Streptomycin – ototoxicity, nephrotoxicity



- a. What abnormal physical sign is demonstrated?
- b. What is the treatment of choice?
- c. Name 5 associated findings on examination?

ANSWER

- a. Enlarged head, setting sun sign
- b. Ventriculo-peritoneal shunt
- c. OFC (large for age), hypotonia, sutural diasthesis, macewen's sign (percussion of the anterior fontanelle gives a dull/cracked pot note), tense, bulging anterior fontanelle

A 5yr old child presented with high grade fever and convulsion

CSF analysis result shows:

CSF glucose – 20mg/dl

RBG – 80mg/dl

WBC count -10,000/mm³

Neutrophil – 60%

Lymphocyte – 40%

- a. Result is suggestive of viral meningitis
- b. Result is suggestive of pyogenic meningitis
- c. The CSF blood sugar is normal
- d. Partially treated meningitis is suggested
- e. Dexamethasone is indicated

ANSWER

- a. F
- b. T
- c. F
- d. F
- e. F



This baby has nephroblastoma

- a. The peak age incidence is 18 months.
- b. Hypertension is a rare finding
- c. List 4 differential diagnosis of this condition
- d. List 5 associated congenital anomalies.
- e. Chemotherapy is mainstay of treatment in this environment.

ANSWER

- a. F (3-4years)
- b. F
- c. Neuroblastoma, rhabdomyosarcoma, Polycystic kidney disease, hepatoblastoma
- d. Hypospadias, cryptorchidism, aniridia, Beckwith-Wiedemann syndrome, cystic kidneys, ureteric abnormalities, Hemihypertrophy, deletion of chromosome 11
- e. F (Surgery – nephrectomy is mainstay)

Concerning diarrhea

- a. If greater than 5 days is persistent diarrhea.
- b. Enteroinvasive E. coli causes secretory diarrhea.
- c. G. lamblia is associated with acute watery diarrhea.
- d. Commonest bacteria cause is shigella.
- e. Dextrose is an appropriate solution for rehydration in cases of severe dehydration.

ANSWER

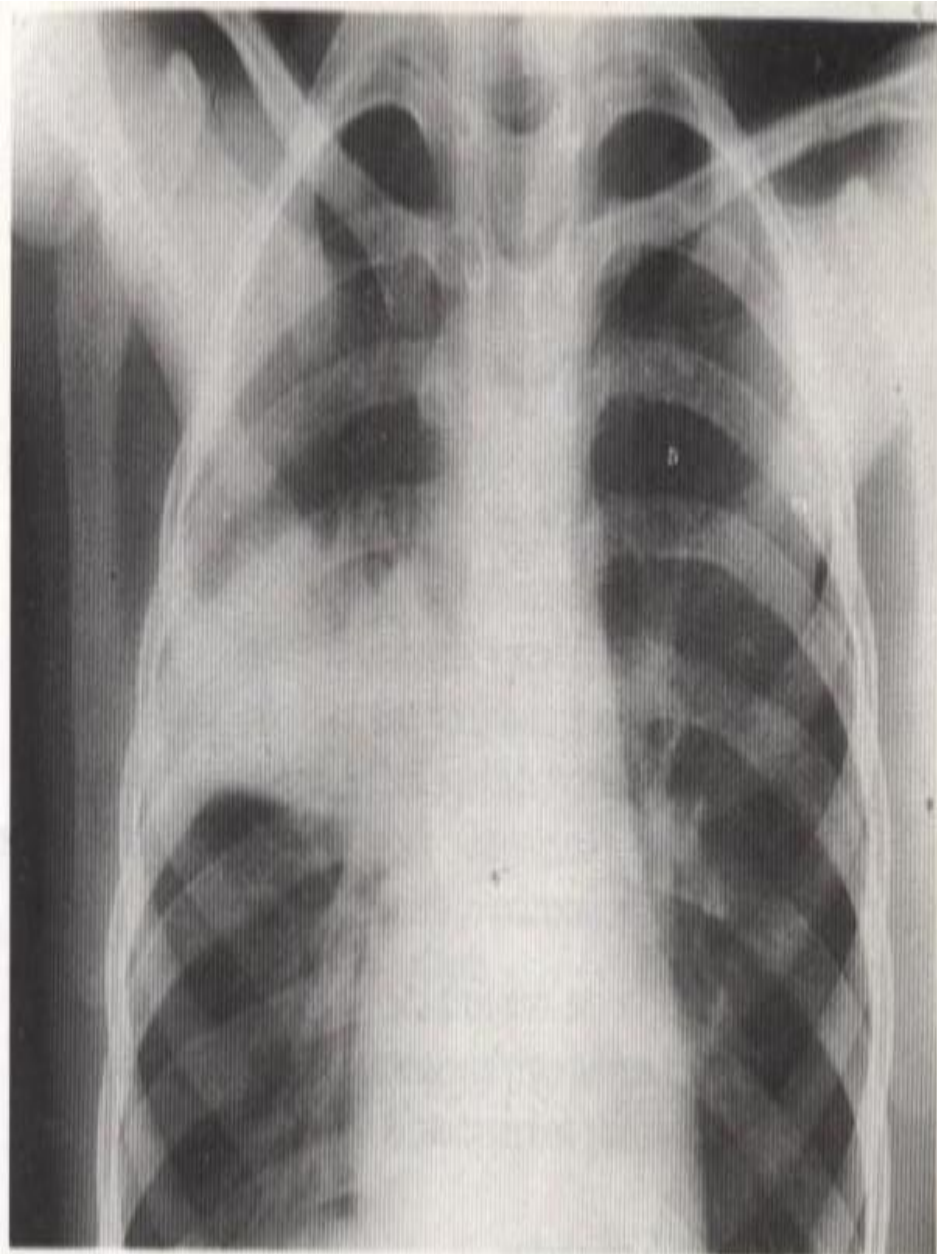
- a. F
- b. F (EIEC causes dysentery)
- c. T
- d. F
- e. F

Ambiguous genitalia is a feature of

- a. Fragile X syndrome
- b. Turner's syndrome
- c. CAH, 21 hydroxylase deficiency
- d. Edward's syndrome
- e. Pseudohermaphroditism

ANSWER

- a. F
- b. F
- c. T
- d. F
- e. T



Examine this X-ray film:

- a. There are cavitory lesions
- b. List 2 extrapulmonary signs.
- c. List 5 clinical features the patient can present with.
- d. List 6 complications of the condition

ANSWER

Diagnosis:- Lobar pneumonia

- F
- Conjunctivitis, otitis media
- Cough, breathlessness, fever, chills, dyspnoea, chest pain, pustules, abscesses in the body
- Heart failure, empyema, atelectasis, pneumothorax, pyopneumothorax, pleural effusion, pneumatocele, Acute respiratory failure, septicaemia, subcutaneous emphysema
- Meningitis, osteomyelitis, septicaemia, pleural effusion, pericarditis, empyema, suppurative arthritis



- a. What syndrome is demonstrated
- b. The mode of inheritance is autosomal dominant. T/F
- c. It is commoner in females
- d. List the components of the syndrome.

ANSWER

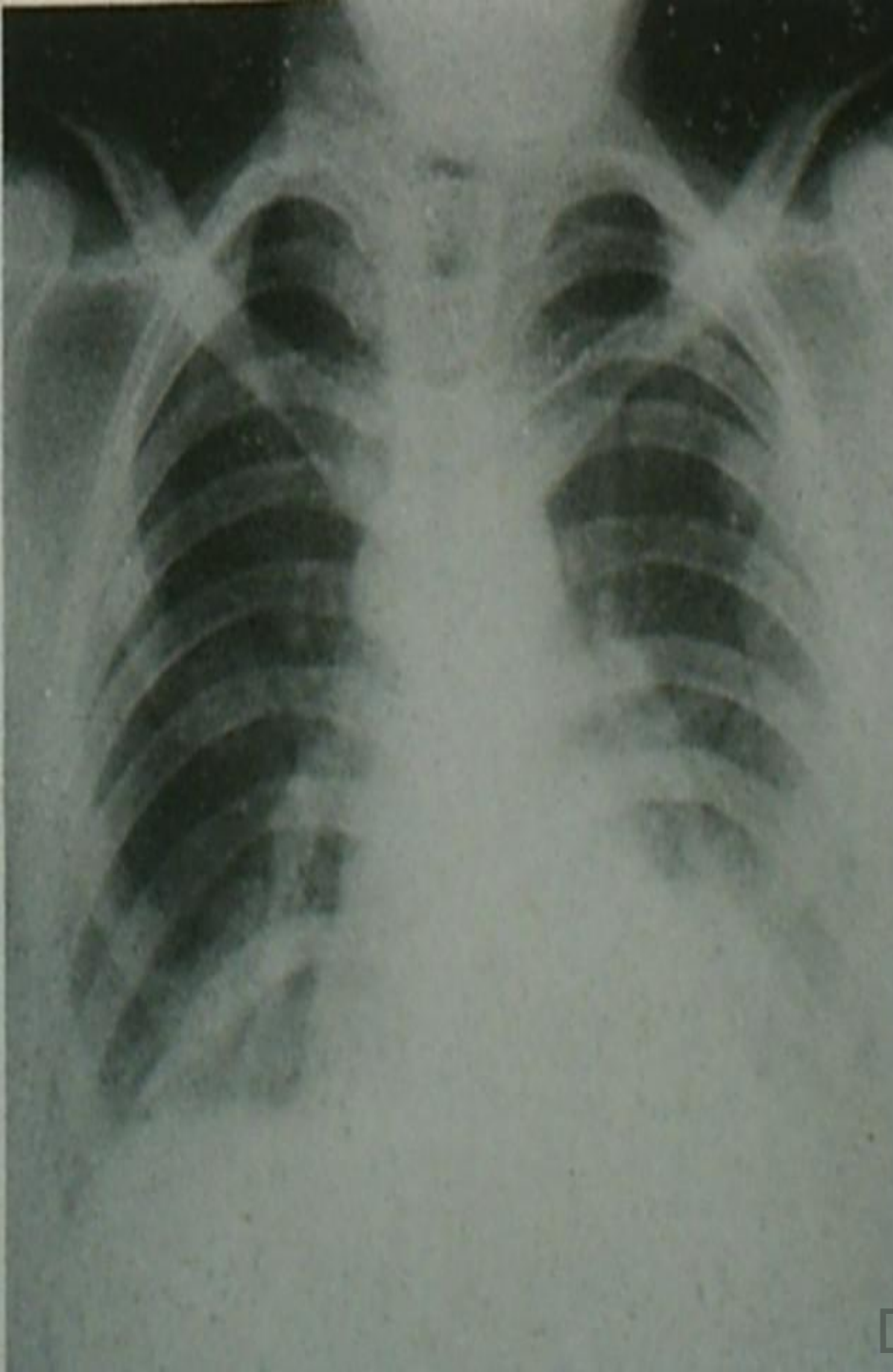
- a. Prune Belly Syndrome
- b. F
- c. F
- d. Deficient/Absent ant. Abdominal wall muscles, undescended testis, urinary abnormalities (hydronephrosis), malrotation of the gut, VSD, club foot

Extrahepatic biliary atresia:

- a. is less common in premature or small-for gestational age infants than in full term infants
- b. causes yellow colouration of the urine from birth
- c. is a disorder unique to infancy
- d. hepatic portoenterostomy(Kasai's procedure) reduces mortality if performed by 14 weeks of age
- e. portal hypertension is present in almost all cases at the time of initial surgery

ANSWER

- a. T
- b. F
- c. F(neonatal period)
- d. F(60 days)
- e. F

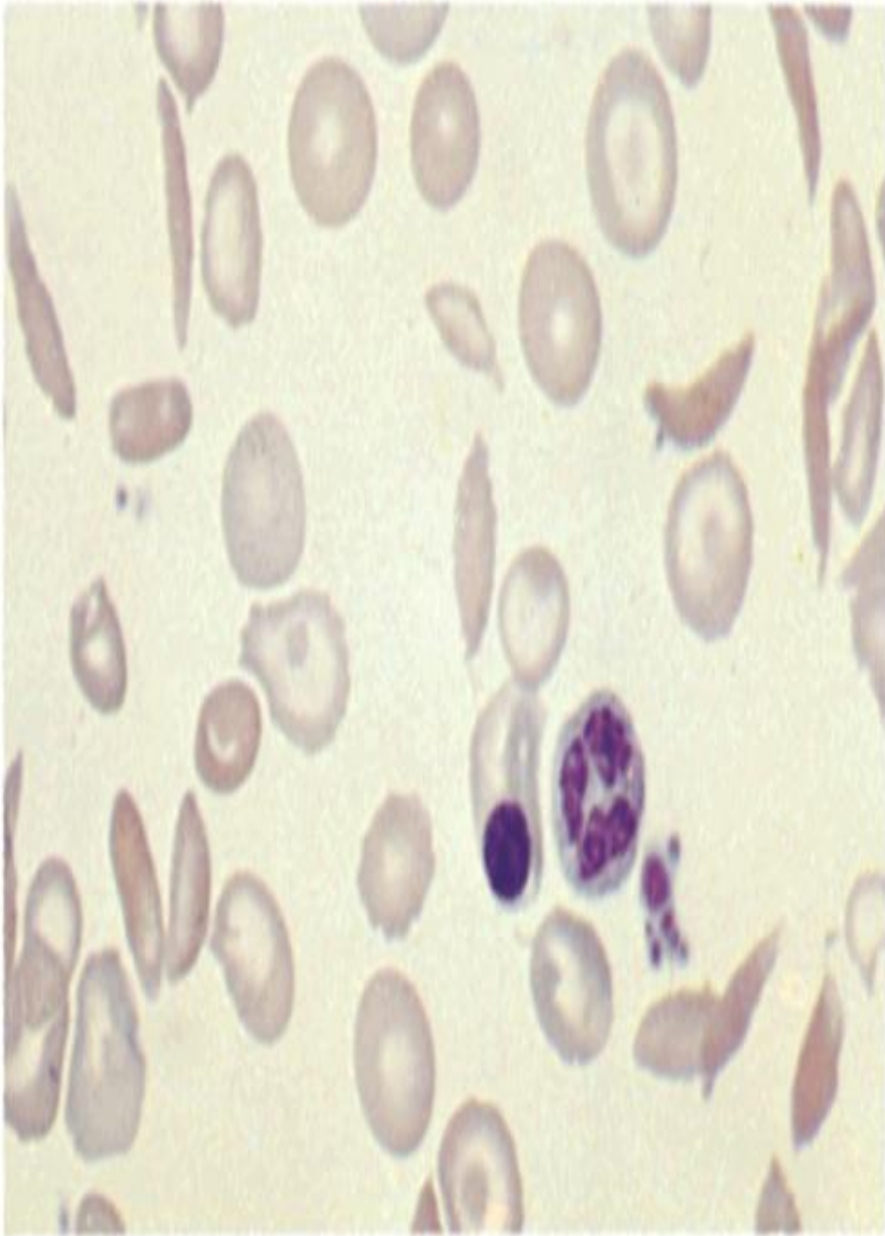


Radiograph of a 10 yr old boy who presented with shortness of breath which had become progressively worse over 48hrs.

- a. What abnormality is demonstrated
- b. Name 3 possible causes
- c. Answer T/F
 - the child's chest is hyperresonant on percussion
 - Lung aspiration is required to make a diagnosis.
 - Pneumothorax is a complication
 - Percussion note on the affected side is hyperresonant.
 - Tactile fremitus on the affected side is increased.

ANSWER

- a. Left Lower lobe opacity (Lt Pleural effusion)
- b. Tb, Neoplasm, lymphaticobstruction, pneumonia, Heart failure,nephrotic syndrome, Liver cirrhosis
- c. i. F
 - ii. F
 - iii. F
 - iv. F
 - v. F



- a. The mode of inheritance is autosomal dominant.
- b. Bone pain crisis is a common complication of the condition.
- c. The condition is protective against all forms of malaria infection
- d. They have impaired xylose absorption test.
- e. The patients require folic acid and ferrous sulphate supplement for life.

ANSWER

- a. F
- b. T
- c. F
- d. T
- e. F

Study this paediatric lab request of a 3 day old male on admission in SCBU on account of LBW, prematurity

Time of collection: 8.30am

PCV – 30%

G6PD assay – normal

Bilirubin –

total – 15mg%

conjugated – 0.1mg%

Concerning this child

- a. An urgent EBT is required
- b. ABO incompatibility is a likely diagnosis
- c. Blood culture is indicated
- d. Prompt phototherapy will prevent the need for EBT
- e. Peroxide haemolysis test is indicated

ANSWER

- a. T (bcos of the anaemia)
- b. T
- c. T
- d. F
- e. F (Indicated only in conjugated hyperbilibinaemia)



The baby in the photograph is 2 days old.

- a. Name the condition being treated?
- b. What treatment is he receiving?
- c. Describe 2 clinical features of kernicterus other than jaundice
- d. Name 2 potential long term sequelae of kernicterus.
- e. List 4 complications of the procedure.
- f. Two contraindications to the procedure.

ANSWER

- a. Neonatal jaundice
- b. Phototherapy
- c. Opisthotonus, hypotonia,
- d. Mental retardation,
- e. Dehydration, Diarrhea, Conjunctivitis, increased insensible water loss,
- f. Conjugated hyperbilirubineamia, presence of kernicterus

Viral hepatitis:

- a. type B is caused by a RNA virus
- b. the host immunological response may be ineffective, in type A, leading to chronic infection
- c. hepatitis D virus occurs in conjunction with hepatitis A, B and C
- d. viral hepatitis type E may be transmitted by blood transfusion
- e. appearance of anti-HBe indicates recovery and protection from re-infection

ANSWER

- a. F
- b. F
- c. F
- d. F
- e. F



Identify the instrument shown

- a. List 3 uses of the instrument.
- b. 5 complications of its use
- c. How many drops using this instrument makes 1ml

ANSWER

- a. IVF, TPN, Drugs
- b. Fluid overload, Thrombophlebitis, Air embolism,
- c. 60 drops

Petit mal epilepsy

- a. More commonly present in adolescents
- b. Has a characteristic EEG appearance
- c. Seizures usually persist to adulthood
- d. Can be precipitated by hyperventilation
- e. It is associated with loss of tone and falls
- f. are more prevalent in girls
- g. are not associated with post-ictal states
- h. are the most common generalized seizure type below 5 years of age
- i. are typified by a 3 per second spike and wave discharge pattern on an EEG

ANSWER

- a. F
- b. T
- c. F
- d. T
- e. F
- f. T
- g. T
- h. F
- i. T

Indications for Renal biopsy

- hypertension >3wks
- Gross Hematuria >3wks
- Microscopic hematuria >1yr
- Proteinuria > 6months
- Nephrotic syndrome
- Acute renal failure
- Low serum C3>8wks

Hyaline membrane disease is:

- a. more common in girls than boys
- b. less likely in infants of a diabetic mother
- c. less severe in babies whose mothers are given steroids immediately before birth
- d. characterised by respiratory acidosis and hypoxia only
- e. is treated with supportive therapy only

ANSWER

- a. F
- b. F
- c. F
- d. F
- e. F



A 3 yr old boy presented with high grade fever and sore throat

- a. Neuritis is a delayed non-suppurative complication
- b. It is caused by Group B β -haemolytic streptococcus
- c. Mastoiditis is a suppurative complication of this condition
- d. IV penicillin V is the drug of choice in management
- e. List 3 investigations that will aid in making a diagnosis

ANSWER

- a. F
- b. F (Group A β haemolytic streptococcus)
- c. F
- d. F (Penicillin V is ONLY given orally)
- e. Throat swab, Blood culture, FBC

Congenital cardiovascular disease

- a. Incidence is 1/1000
- b. Patients require antibiotics 3 days before dental treatment.
- c. Is increased in maternal thyrotoxicosis
- d. Is associated with karyotype XO
- e. VSDs account for about 20% of congenital cardiac defects.

ANSWER

- a. F
- b. F
- c. F
- d. T
- e. F



Identify the instrument shown

- a. In which procedure is the instrument used.
- b. List 5 indications for the procedure

ANSWER

A 4-way tap

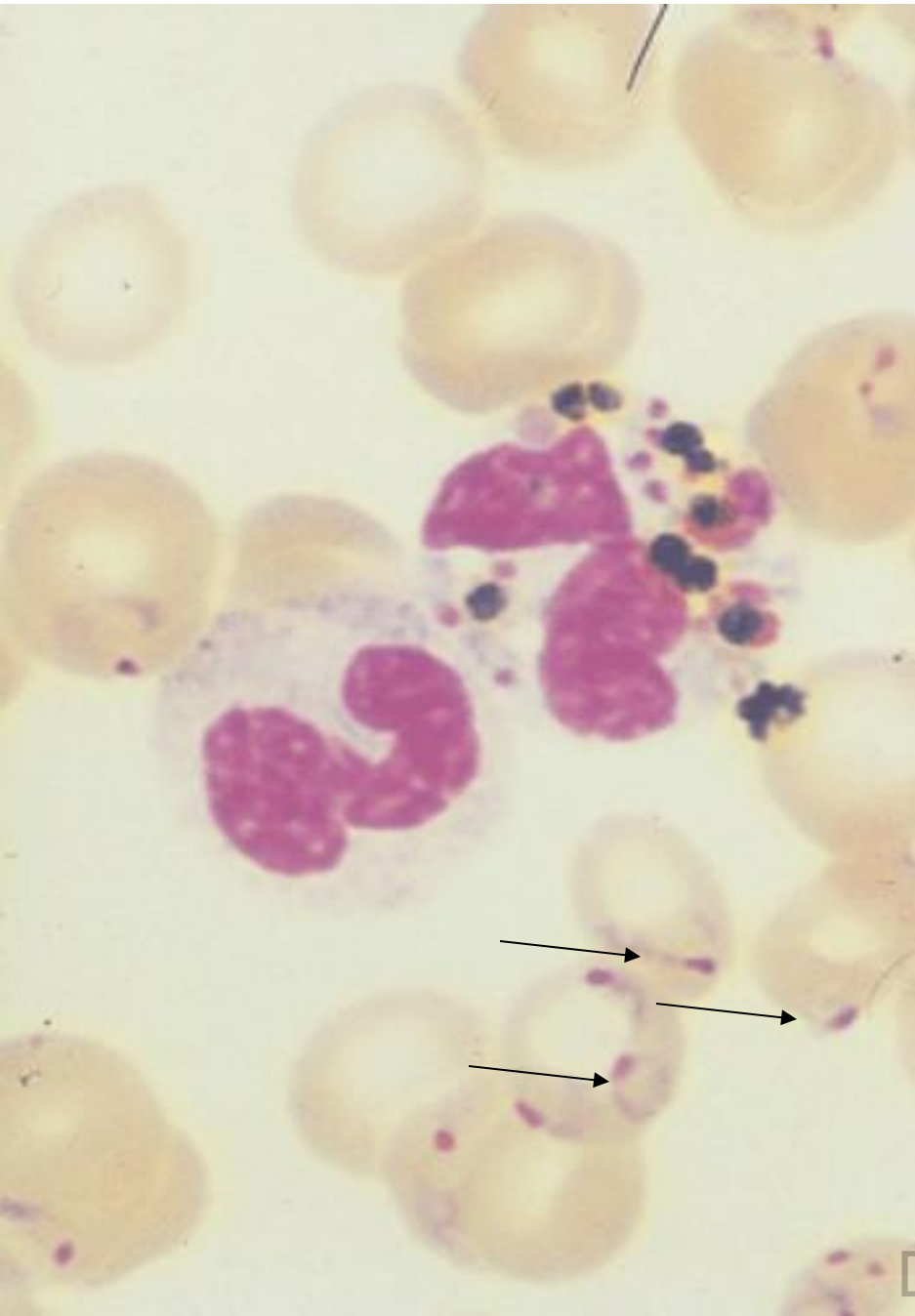
- EBT
- Neonatal jaundice (unconjugated), severe anaemia, toxic poisoning, SCD esp in CVD, Septicaemia

Retinoblastoma

- a. Is the second most common eye tumour of childhood
- b. All bilateral cases are inherited in autosomal dominant trait
- c. Unilateral cases are never inherited as autosomal dominant
- d. The gene for the trait is a tumour suppressor gene
- e. Chemotherapy is associated with secondary bone tumours.

ANSWER

- a. F
- b. F
- c. F
- d. T
- e. F



This is the blood film of a 3yr old who presented with high grade fever, convulsion and Loss of consciousness

- a. Hyperglycemia is a common complication of treatment
- b. Splenomegaly may be present
- c. Chloroquine is the first line drug
- d. CSF analysis is not necessary in diagnosis
- e. Persistent neurologic deficit in $>15\%$ of cases

ANSWER

- a. F
- b. T
- c. F
- d. F
- e. F

Congenital nephrotic syndrome:

- a. is most common in Finland
- b. is inherited in an X linked recessive fashion
- c. is associated with a small placenta
- d. is associated with raised alpha-feto protein in amniotic fluid

ANSWER

- a. T
- b. F (Mode of inheritance is AR)
- c. F (Large placenta)
- d. T

A normal 6 month old infant can

- a. Hold its head steady
- b. Always has a Moro reflex
- c. No longer have a plantar grasp reflex
- d. Can pick up an object between thumb and finger
- e. Show hand preference

ANSWER

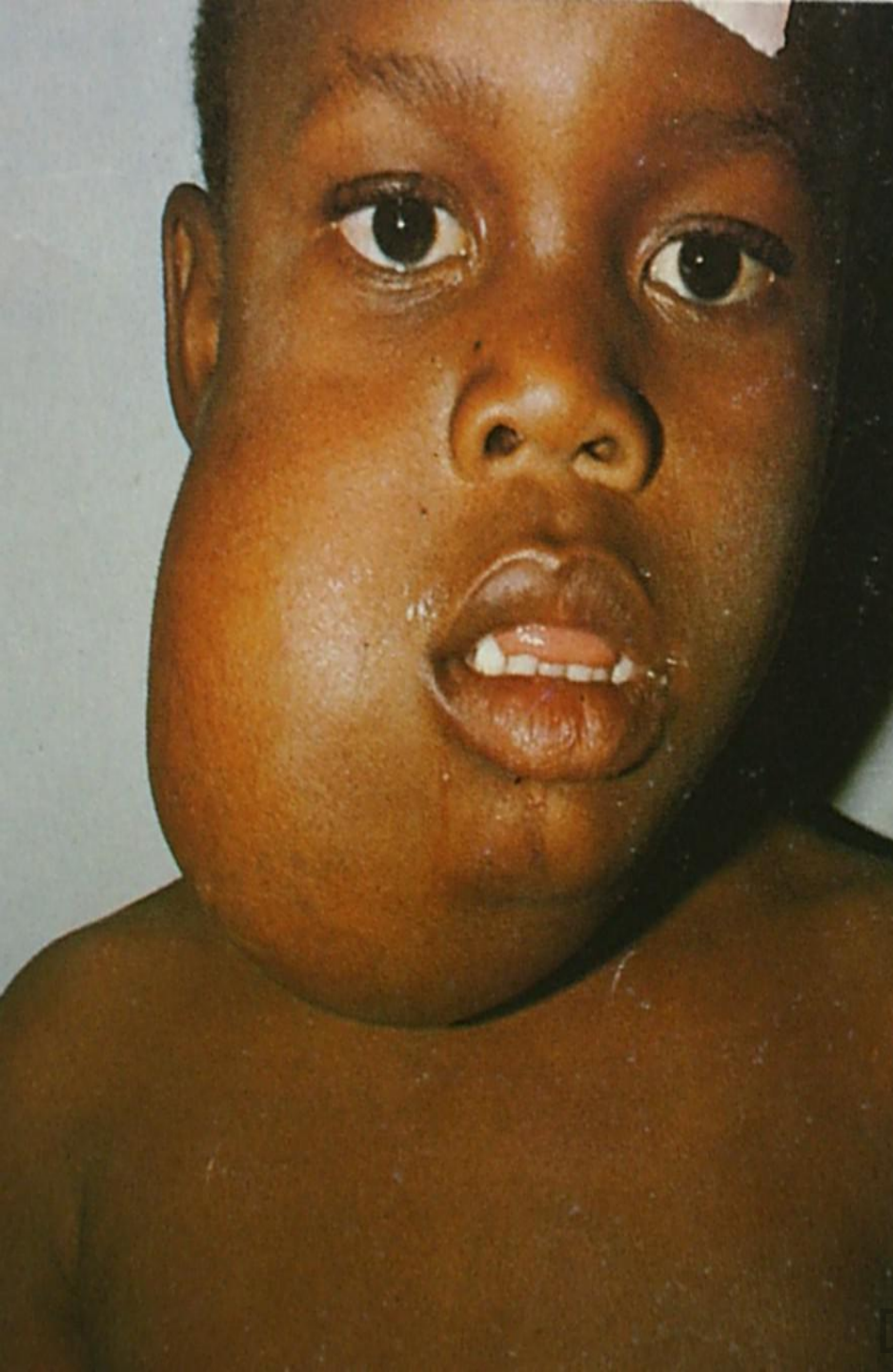
- a. T
- b. F
- c. F
- d. F (9 months)
- e. F

Study this lab request report of a 3yr old child.

- Na^+ - 122mEq/l
 - K^+ - 2.2mEq/l
 - Cl^- - 86mEq/l
 - HCO_3^- - 14mEq/l
- a. There is hyponatremia
 - b. Patient may have paralytic ileus
 - c. IV dextrose and insulin is beneficial
 - d. Serum HCO_3^- is normal
 - e. Report is in keeping with gastroenteritis in a malnourished child

ANSWER

- a. T
- b. T
- c. F
- d. F
- e. T



A 3 yr old boy presented at OTECHEW

- a. What is the most likely cause of the swelling
- b. What are the associations of the swelling?
- c. TB is a differential T/F
- d. List the components of tumour lysis syndrome
- e. Jaw X-ray is diagnostic. T/F

ANSWER

- a. Burkitt's Lymphoma
- b. Translocation 8:14, 8:22, 2:8; EBV infection; chronic malaria infection
- c. T
- d. Hypocalcemia, hyperphosphatemia, hyperkalemia, hyperuricaemia, Metabolic acidosis
- e. F

The following are contraindications to immunization

- a. Prematurity
- b. Previous history of pertussis infection
- c. Family history of adverse reactions following immunization
- d. Child's mother is pregnant
- e. Child of HIV +ve mother

ANSWER

- a. F
- b. F
- c. A
- d. F
- e. F

Children with acute laryngotracheo bronchitis (croup):

- a. have a barking cough
- b. should be allowed home with stridor at rest
- c. may benefit from oral dexamethasone
- d. can be reassured that it will not re-occur
- e. should inhale steam at home

ANSWER

- a. T
- b. F
- c. T
- d. F
- e. T



This 10yr old girl presented with a swelling in the neck.

- a. She may develop features of heart failure
- b. Digital clubbing may be found on examination.
- c. An emergency thyroidectomy is indicated
- d. She has bilateral proptosis
- e. Anti-thyroid drugs may effect a cure.

ANSWER

- a. T
- b. T
- c. F
- d. F
- e. F

Acute severe asthma is associated with:

- a. an inability to talk
- b. pulsus alternans
- c. a PEFV that is 70% of predicted (or the child's best)
- d. Presence of cyanosis
- e. an absence of wheeze on auscultation

ANSWER

- a. T
- b. F
- c. F
- d. F
- e. F



- a. Which structure in the neonatal skull is being examined?
- b. Which pair of bones form the boundaries to this structure?
- c. If the skin over this structure is sunken, what would you suspect?
- d. If the skin over this structure is tense, what would you suspect?
- e. At what age does the structure usually close?
- f. What is the term given to a subperiosteal haematoma of the neonatal skull
- g. What clinical feature is pathognomonic of this?
- h. List 2 complication of the above condition (question f)

ANSWER

- a. Anterior fontanelle
- b. Frontal and Parietal
- c. Dehydration
- d. Raised ICP
- e. 18 months
- f. Cephalhematoma

Urinary tract infection:

- a. is more common in males in the neonatal period
- b. in childhood is more likely to be due to ascending infection.
- c. gram negative *Escherichia coli* is the most common organism in Ibadan.
- d. scarring is more likely to occur if there has been a delay in treatment
- e. an ultrasound is the best way of detecting renal scarring

ANSWER

- a. T
- b. T
- c. F
- d. T
- e. T



- a. Pseudocholinesterase drug might be of help in management
- b. Neostigmine is both diagnostic and therapeutic
- c. Severe cases can be life threatening
- d. Infants of affected mothers can develop a transient disease
- e. There is inadequate acetylcholine molecules at the Neuromuscular jxn.

ANSWER

- a. F
- b. F
- c. T
- d. T
- e. F

HIV positive children:

- a. may receive live measles vaccination
- b. may receive live oral polio vaccine
- c. should not receive BCG immunization
- d. may receive meningococcal A & C vaccines
- e. may receive yellow fever vaccine

ANSWER

- a. F
- b. F
- c. T
- d. T
- e. F



A 2 yr old boy with 2 wks history of catarrh, sneezing preceding this cough.

- a. What is the diagnosis
- b. 4 differential diagnosis
- c. On lateral radiograph of the neck, what sign can be seen.
- d. What is the mainstay of treatment.

ANSWER

- a. Laryngotracheobronchitis
- b. Acute epiglottitis, Laryngeal diphtheria, foreign body in airway, Retropharyngeal abscess
- c. Subglottic narrowing
- d. Humidified Oxygen therapy

The following are true of a metabolic alkalosis in children:

- a. it may be caused by potassium deficiency
- b. may occur in pyloric stenosis
- c. often requires treatment with up to 1 mmol of potassium per kg over 24 hours
- d. is best treated by giving 10 per cent dextrose and added potassium chloride
- e. is associated with an altered conscious state

ANSWER

- a. T
- b. T
- c. F
- d. F
- e. F



- a. What abnormality is seen in this picture.
- b. what are the X-ray findings.
- c. List 4 differentials of this condition.
- d. What is the normal recommended daily allowance for Vitamin D.
- e. Surgery (Wedge osteotomy) is done in the first year. T/F
- f. Measurement of the intermalleolar distance is required. T/F

ANSWER

- a. Rickets, genu valrum
- b. Cupping, wine glass appearance
- c. Blount's disease, physiologic, idiopathic, Retardation of growth plate or trauma on medial side
- d. 400 – 800 IU/day
- e. F
- f. F

Congenital adrenal hyperplasia:

- a. neonates with 21-hydroxylase or 11-beta-hydroxylation have abnormally high testosterone levels
- b. 21-hydroxylase and 11-beta-hydroxylase are cytochrome P450 enzymes
- c. cortisol is produced in the zona glomerulosa and aldosterone in the zona fasciculata
- d. in 21-hydroxylase deficiency, salt-wasting is related to the severity of the genetic mutation
- e.

ANSWER

- a. F
- b. T
- c. F
- d. F

Hepatitis A:

- a. humans are the only host
- b. there is no specific treatment
- c. splenomegaly occurs in the majority of patients
- d. is an uncommon cause of childhood jaundice
- e. fulminating hepatitis occurs in 15%

ANSWER

- a. T
- b. T
- c. F
- d. F
- e. F



Identify the condition shown.

- a. It is a sex linked disorder.
- b. It is an acquired condition.

ANSWER

Ambiguous External genitalia

a. F

b. F

c.



- a. Has autosomal recessive inheritance
- b. There is speech defect if mother starts to talk to child early
- c. If not treated early, malnutrition could be a complication
- d. It predisposes to chest infections

ANSWER

- a. T
- b. F
- c. T
- d. T

CLERKING STATION

Take a relevant history from this child who presented with cough, breathlessness and easy fatigability, all of 3month duration.

(Age of Child 3years)

Diagnosis:- TOF

CLERKING STATION

Take a relevant history from the mother of this 6 day old child who presented with

- Refusal of feeds
- Vomitting

Of 2 days duration

Diagnosis:- Neonatal sepsis

CLERKING STATION

The patient is a 5 years old boy who presented with a history of fever, cough and catarrh all of 5 days.

Take a relevant history from his mother

Diagnosis:- Pneumonia

CLERKING STATION

Child presented with

- yellowness of eyes &
- body weakness

of 5 days duration (Age 4years old)

Diagnosis:- Sickle cell anaemia

Thank you

