

Neurology

Decreased glucose and high polymorphonuclear cell count in the CSF may be seen in:

- A Echo virus meningitis (False)
- B early tuberculous meningitis (True)
- C *E. coli* meningitis (True)
- D meningococcal meningitis (True)
- E cryptococcal meningitis (True)

Comments:

a-Though it is seen in 1/4 cases of mumps and herpes virus meningitis. b-Lymphocytes usually predominate except in early disease where there may be 80% polymorphs. c+d -Bacterial meningitis. e- The glucose is usually reduced OTM 3e, 14.2.6).

Erb's palsy:

- A Is the commonest form of birth trauma. (False)
- B May lead to wasting of the arm. (True)
- C Affects the small muscles of the hand. (False)
- D Is common after breech delivery. (True)
- E May be due to injury of the upper brachial plexus. (True)

Comments:

Minor soft tissue injuries to the head for example following scalp electrode placement or caput succedaneum occur more commonly. Erb's palsy involves injury to the upper brachial plexus (C5-6), leads to wasting of arm, but not the intrinsic muscles of the hand, which would be the result of lower brachial plexus injury. Erb's palsy is more common in large for dates infants and breech deliveries. Klumpke described the clinical picture of lower brachial plexus injury (C7-T1).

Prenatal diagnosis of neural tube defect may be accomplished by:

- A Fetal karyotyping. (False)
- B Estimation of amniotic fluid alpha-fetoprotein. (True)
- C Assay of amniotic fluid acetylcholinesterase. (True)
- D High resolution ultrasound. (True)
- E Estimation of amniotic fluid cholesterol. (False)

Comments:

Maternal serum alphafetoprotein is used as the original screening test and elevated levels are confirmed by Estimation of amniotic fluid alphafetoprotein and assay of amniotic fluid acetylcholinesterase.

Complications of long term phenytoin include:

- | | | |
|---|----------------|---------|
| A | hirsutism | (True) |
| B | osteoporosis | (True) |
| C | hypercalcaemia | (False) |
| D | macrocytosis | (True) |
| E | ataxia | (True) |
-

Comments:

Phenytoin is associated with Osteomalacia, hirsutism gingival hyperplasia and ataxia with toxicity. It may result in hypocalcaemia due to interference with vitamin D metabolism and may cause a high MCV.

Regarding hemiplegic migraine:

- | | | |
|---|---|---------|
| A | Can result in cerebral infarction. | (True) |
| B | If familial, it is inherited in an autosomal dominant fashion. | (True) |
| C | The symptoms are thought to be caused by an embolic phenomenon. | (False) |
| D | Can be prevented by Pizotifen. | (False) |
| E | CSF pleocytosis excludes the diagnosis. | (False) |
-

Comments:

Hemiplegic migraine refers to a complicated form of migraine with unilateral sensory or motor signs during an episode. Commoner in children than adults with numbness of the face, arm and leg, unilateral weakness and aphasia. Multiple attacks are unusual, and signs may be transient or persist for a few days. Completed stroke can occur after multiple episodes leading to mental retardation and epilepsy . There is often a positive family history, where there is an AD abnormality of calcium channels.

The following apply to neural tube defects:

- | | | |
|---|---|---------|
| A | The defect is always diagnosed at birth. | (False) |
| B | The overall risk of recurrence is 1 in 20. | (True) |
| C | The maternal serum alpha-fetoprotein (AFP) level is characteristically low in affected cases. | (False) |
| D | Talipes equinovarus is a common associated abnormality. | (True) |
| E | Hydrocephalus is a common accompaniment of myelomeningocele. | (False) |
-

Comments:

A small encephalocele is a form of a neural tube defect that may go undetected for years. The risk of recurrence in subsequent pregnancies is higher. An elevated MSAFP measured at 16-18 weeks' gestation is a good predictor of neural tube defects. It is possible for multiple skeletal abnormalities to co-exist such as talipes, cleft lip and cleft palate. Myelomeningocele is a protrusion of spinal cord into a sac on the back through a deficient axial skeleton with a variable dermal covering

In mumps:

- A The incubation period is usually 21 days. (True)
 - B Orchitis is typically bilateral. (False)
 - C Aseptic meningitis is a complication. (True)
 - D Amylase may be increased despite no evidence of pancreatitis clinically. (True)
 - E Sublingual swelling may occur. (True)
-

Comments:

Paramyxovirus infect the salivary glands, especially the parotids. It is spread by direct contact, saliva, droplets, and urine. 85% of patients are <5 years to young adults. Fever, myalgia, headache, malaise, unilateral or bilateral parotid enlargement and pain, rarely a rash (MP).

Complications include: meningoencephalomyelitis in >10% clinically or ? up to 65%. Orchitis affects 25% of adolescents. Bilaterally in 30%, only \AE fertility, not sterility. It rarely causes oophoritis, pancreatitis, nephritis, thyroiditis, myocarditis, mastitis, deafness (but important), ALSO, eye, joints and low platelets (3TP).

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Which of the following statements is true of upper limb nerve injuries?

- A Injury to the median nerve results in a wrist drop (False)
 - B Injury to the median nerve results in loss of sensation over the palmar aspect of the index finger (True)
 - C Injury to the radial nerve results in loss of sensation in the anatomical snuffbox (True)
 - D Injury to the ulnar nerve results in a claw hand (True)
 - E Injury to the ulnar nerve results in loss of sensation over the thumb (False)
-

Comments:

Radial nerve injury results in a wrist drop and a variable amount of sensory loss. The anatomical snuffbox is usually involved. Median nerve injury results in loss of sensation over the thumb, index, middle and the lateral half of the ring finger. Ulnar nerve injury results in a claw hand deformity and loss of sensation over the medial half of the ring finger and little finger.

Concerning obsessional neurosis:

- A Patients have good insight. (True)
- B Patients often give way to aggressive impulses. (False)
- C The occurrence of depression is a recognised feature. (True)
- D Inconclusive rumination is characteristic. (True)
- E There is regularly a history of faulty training in excretory habits. (False)
-

Comments:

Obsessive Compulsive Disorder results in repetitive thoughts that invade consciousness, or repetitive rituals or movements that do not obviously contribute to a high level of adaptation in any given situation. At times of stress some children touch certain objects, verbalise certain words, or wash their hands continuously. There is obsession with bodily wastes and secretions, the fear that something calamitous will happen, or the need for sameness. The most common compulsions are hand washing, continual checking of locks, and touching. These occur consciously, often causing great distress. There is often external, ritualised behaviour in an attempt to involve their parents in their compulsions. This may be measured using the Yale Brown Obsessive Compulsive Scale. Life time prevalence is 1%. Treatment consists of behavioural therapy and pharmacotherapy.

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Oligoclonal IgG in the CSF may be seen in:

- A infective polyradiculopathy (False)
- B multiple sclerosis (True)
- C sarcoid (True)
- D systemic lupus erythematosus (True)
- E syphilis (True)
-

Comments:

a-Seen in AIDS, brucellosis and Lyme disease no association with oligoclonal bands unlike guillain-Barre. Oligoclonal IgG seen in >90% cases of MS, also seen in sarcoid, SLE, syphilis (Epstein p278).

The following are recognised causes of syndrome of inappropriate ADH secretion (SIADH):

- A Guillian-Barre Syndrome. (True)
- B Perinatal asphyxia. (True)
- C Use of positive pressure respirator (True)
- D Renal infection (False)
- E Benign intracranial hypertension (False)
-

Comments:

CNS causes - surgical or traumatic damage to the brain - encephalitis/ brain abscess - brain tumours - meningitis, Guillain-Barré syndrome/ bulbar poliomyelitis - cerebrovascular accidents, subdural haematomas - tumours of the fourth ventricle - neonatal hypoxia or hydrocephalus 2. Pulmonary disorders - pneumonia - tuberculosis - asthma

Pyogenic meningitis

- A is commonly a result of meningococcal infection in the UK (True)
 - B due to meningococcal infection is very rare in those aged less than 1 year old (False)
 - C is associated with raised levels of IgM in the cerebrospinal fluid (True)
 - D due to haemophilus influenzae is prone to run a subacute course in children, with the development of subdural effusion (True)
 - E is complicated by cranial nerve lesions (True)
-

Comments:

Pyogenic meningitis is most commonly due to meningococcal infection. The disease occurs mostly in those aged 2 months to 20 with a peak incidence in the winter. IgM to Meningococcus is found in the CSF. Haemophilus influenzae on the other hand may run a more insidious course but is associated with more post-infective co-morbidity, deafness etc in particular VIII nerve deficits - deafness.

The following may cause deafness in children

- A meningococcal septicaemia (True)
 - B maternal rubella (True)
 - C congenital syphilis (True)
 - D hereditary nephritis (True)
 - E Pendred's syndrome (True)
-

Comments:

1. Deafness is an important complication of meningitis in children 2. Deafness occurs in up to 80% of children affected by congenital rubella 3. nerve deafness can be a late manifestation of congenital syphilis 4. Alport's syndrome is the combination of nerve deafness and hereditary nephritis 5. Pendred's syndrome – nerve deafness and hypothyroidism – due to an inborn defect of organification of trapped iodine

Complete third nerve palsy causes:

- A Ptosis (True)
- B Divergent squint (True)
- C Constrictive pupil (False)
- D Loss of corneal reflex (False)

E Decreased sweating

(False)

Comments:

Causes of third nerve palsy include:

- Congenital: developmental anomaly, birth trauma.
- Acquired: intracranial neoplasm, aneurysm, trauma, post-viral syndrome, migraine.

Third nerve palsy causes an exotropia (divergent squint). There may be downward deviation of the affected eye and complete or partial ptosis of the upper lid. This occurs because of the unopposed lateral rectus and superior oblique actions. If the internal branch of the third nerve is involved, pupillary dilatation also occurs. Eye movements are limited nasally, in elevation, and in depression.

The corneal reflex is mediated by V and VII. *Copyright © 2002 Dr Colin Melville*

A 12 year old boy presents with unexplained neurological illness. The following suggest substance abuse:

A A history of low self-esteem.

(False)

B A history of social isolation.

(False)

C Deposits around the mouth.

(True)

D A history of family conflict.

(False)

E A history of attention deficit disorder.

(False)

Comments:

An increasing number of adolescents are experimenting with alcohol, drugs and solvents, usually soon after entering secondary school. Unfortunately, this includes a rising number of young girls smoking. Factors associated with drug use include low self-esteem, social isolation, depression, family conflicts and other conduct disorders. Presentations suggestive of substance abuse include altered behaviour, sniffer's rash, injection sites, chronic upper respiratory tract infection, irregular pulse, glue stains on the skin or clothes, and acute intoxication \pm ataxia, coma, respiratory depression and cardiac arrhythmia. The only specific thing indicating substance abuse in this case is, therefore, the deposits presumably of glue around the mouth. Sniffer's rash consists of inflammation and ulceration around the mouth and nose.

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In X-linked severe (Duchenne) muscular dystrophy the following apply:

A It is usually diagnosed at birth

(False)

B The calf muscles hypertrophy

(True)

C It can present with delayed walking

(True)

D Urinary incontinence is common

(False)

E Nerve conduction is abnormal (False)

Comments:

This form of muscular dystrophy usually manifests in toddlers and early childhood when motor skills are developed such as running and jumping. Pseudohypertrophy of the calf muscles is characteristic. The first symptoms may be delayed walking and frequent falls. Urinary incontinence is associated with spinal cord and upper motor neurone lesions and not with muscular dystrophy. Motor and sensory nerve conduction velocities are normal, but EMG will be abnormal.

The following enzymes are involved in the synthesis of the neurotransmitters with which they are paired:

- A cholinesterase: acetylcholine (False)
 - B dopa decarboxylase: noradrenaline (True)
 - C catechol-o-methyl transferase: dopamine (False)
 - D monoamine oxidase: serotonin (False)
 - E glutamic acid decarboxylase: gamma-aminobutyric acid (GABA) (True)
-

Comments:

a-Breakdown, b-dopa to dopamine (and then noradrenaline by dopamine beta-oxidase), c-metabolism of NA to VMA, d-breakdown to 5-HIAA.

Rheumatic chorea

- A does not occur in conjunction with rheumatic fever (False)
 - B is not associated with muscular weakness (False)
 - C may be unilateral (True)
 - D responds rapidly to ACTH (False)
 - E movements cease during sleep (True)
-

Comments:

Sydenham's Chorea/St Vitus dance is associated with Rheumatic fever and frequently seen in children. Unilateral chorea may be a feature and muscular weakness is associated. ACTH is not used for treatment and is treated with appropriate therapy of underlying condition.

In resuscitating a collapsed neonate:

- A 10ml/kg of fluid should be given if hypovolaemia is suspected. (True)
- B Treatment of metabolic acidosis would be with 10mmol/kg of sodium bicarbonate. (False)
- C Naloxone may be used to stimulate respiration in a child born by caesarean (False)

section under general anaesthesia.

- D In asystole, the first dose of adrenaline should be 10mcg/kg. (True)
- E Atropine is frequently useful for bradycardia. (False)

Comments:

The asphyxiated neonate remains a relatively common problem. The sequence of resuscitation should follow the usual A, B, C, securing of the airway, establishing aeration of the lungs, and then correcting circulatory disturbance. Bradycardia and asystole are usually secondary to respiratory problems. Adrenaline may be needed in asystole, and fluid in hypovolaemia. Bicarbonate is sometimes needed if the child has developed a severe metabolic acidosis. Naloxone is useful only if the child has received indirect opiates via mother, and atropine is rarely useful.

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In meningococcal septicaemia:

- A Clinical features of meningitis are usually present (False)
- B Ciprofloxacin is a suitable choice for prophylaxis (True)
- C Prophylaxis does not reduce nasal carriage (False)
- D Treatment should await bacteriological confirmation (False)
- E A petechial rash is associated with DIC (True)

Comments:

Many patients with meningococcal septicaemia have no meningeal involvement. The mortality of meningococcal septicaemia is even higher than for meningitis. Prompt treatment is essential and all suspected cases must be given antibiotics without awaiting bacteriological confirmation. Ciprofloxacin and rifampicin are the drugs most frequently used in chemoprophylaxis, the purpose of which is to eradicate nasopharyngeal carriage. The characteristic petechial rash is due to release of cytokines, prostaglandins and free radicals, which cause vasculitis and can lead to DIC and multi-organ failure.

Conditions which are transmitted by means of an X-linked recessive inheritance include:

- A Cystic fibrosis (False)
- B Galactosaemia (False)
- C Haemophilia (True)
- D Duchenne muscular dystrophy (True)
- E Facio-humero-scapular dystrophy (False)

Comments:

Cystic fibrosis and galactosaemia are autosomal recessively inherited conditions. Haemophilia and Duchenne muscular dystrophy are X-linked recessive and Facio-humero-scapular dystrophy is inherited in an autosomal dominant manner.

Progressive spinal muscular atrophy of infancy presents with

- | | | |
|---|--|---------|
| A | severe generalised weakness | (True) |
| B | fasciculations seen in the tongue | (True) |
| C | loss of spinothalamic tract function | (False) |
| D | spontaneous fibrillation on electromyography | (True) |
| E | normal tendon reflexes | (False) |

Comments:

Spinal muscular atrophy, classified into three forms: Infantile, late infantile and juvenile. The specific gene defect (AR inheritance) is localised to the Chr 5, which when defective fails to suppress the normal preprogrammed neuronal cell death at birth. The characteristic features are fasciculations seen best in the resting tongue, fibrillation potentials in EMG, denervation pattern on a muscle biopsy.

At birth a baby has

- | | | |
|---|----------------------------|---------|
| A | stepping reflex | (True) |
| B | its own IgG | (False) |
| C | its own IgM | (False) |
| D | positive Babinski response | (True) |
| E | nasal respiration | (True) |

Comments:

2. has maternal IgG which can cross the placenta 3. IgM does not cross the placenta, and does not reach adult levels until the infant is 2-5 months old. 4. upgoing plantars can be normal up to the age of one year

A presumed male child of 6 years has apparent hypospadias and no palpable testes. The following would be in favour of the child being female:-

- | | | |
|---|---------------------------------------|---------|
| A | buccal mucosa chromatin -ve | (False) |
| B | high urinary 17-ketosteroid excretion | (True) |
| C | pubic hair present | (True) |
| D | abnormally tall stature | (True) |
| E | retarded bone maturation | (False) |

Comments:

a - females have a barr body b,c,d - suggest CAH and virilization e - not a feature at this age, would expect advanced bone age in a female.

The following are true of tetanus:

- | | |
|--|---------|
| A failure to culture <i>Clostridium tetani</i> from the wound would make the diagnosis doubtful | (False) |
| B infection confers lifelong immunity | (False) |
| C there is a characteristic EEG | (False) |
| D Clostridium-specific intravenous immunoglobulin is of no benefit once spasm has started | (False) |
| E cephalic tetanus causes severe dysphagia | (True) |

Comments:

a-absence of a wound does not exclude tetanus. b-patients need to be actively immunized after recovery. c-The toxin tetanospasmin doesn't cross the blood brain barrier, it diffuses through the blood to bind to receptors containing gangliosides on the neuronal membranes of presynaptic nerve terminals in muscles. The toxin does reach the brain by axonal transport. d-it is ineffective once the toxin is attached to nervous tissue but may prevent progression. e-Cephalic meaning involving the cranial nerves usually from a wound on the head and neck. May be confused with rabies but hydrophobia never occurs. (OTM, 3e, 7.11.20)

Stiff neck in a young child occurs in:

- | | |
|----------------------------------|---------|
| A acute poliomyelitis | (True) |
| B retropharyngeal abscess | (True) |
| C rickets | (False) |
| D Still's disease | (True) |
| E Vitamin A deficiency | (False) |

Comments:

1.due to the meningitic component in acute poliomyelitis 2.a well recognised cause. The neck is hyperextended. 4.due to the involvement of the cervical spine in the arthritis of Still's disease

The following are characteristic of early tetanus:

- | | |
|----------------------------|---------|
| A Rigid abdomen | (True) |
| B Rigid jaw muscles | (True) |
| C Dysphagia | (True) |
| D Hyperpyrexia | (True) |
| E Carpopedal spasm | (False) |

Comments:

Infantile generalised tetanus develops within 302 days of birth. The usual picture is of poor feeding, hunger crying, paralysis and decreased movement. The child becomes stiff with muscular spasms and opyhtotomis. A contaminated umbilicus may be obvious. The fever is usually secondary to muscular spasm (muscular energy). Carpopedal spasms +/- laryngospasm occurs in manifest tetany due to extreme vitamin D deficiency, hypomagnesaemia or hypocalcaemia. The wrists are flexed with extended fingers and aducted thumbs with extended and aducted feet. Latent tetany refers to carpopedal spasm occurring on ischaemia of the motor nerves caused by blowing up of a blood pressure cuff.

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Gaucher's disease

- A causes accumulation of gangliosides (True)
 - B causes massive splenomegaly (True)
 - C is associated with X-linked inheritance (False)
 - D causes bone erosions (True)
 - E is associated with discolouration of the skin (True)
-

Comments:

a-deficiency of beta-glucocerebrosidase leads to accumulation of gangliosides in nervous tissue (children) or liver, spleen and bone (adults). c-autosomal recessive, chromosome 1 d-cortices of long bones e-yellow brown skin

A patient involved in an accident finds that he is unable to taste sweet/ salty or sour tastes. Which of the following cranial nerves is likely to be responsible for this sensory loss?

- A Olfactory nerve (False)
 - B Facial nerve (True)
 - C Hypoglossal nerve (False)
 - D Glossopharyngeal nerve (False)
 - E Vagus nerve (False)
-

Comments:

The facial nerve is responsible for the appreciation of taste sensation. The olfactory nerve is associated with smell, the glossopharyngeal along with the hypoglossal bnerve innervates pharyngeal muscles and the vafus is involved with parasympathetic swallowing etc.

Regarding pain perception in children:

- A Older children have a lower tolerance to pain. (True)

- B** Pre-term neonates have a decreased pain perception because of biological immaturity. (False)
- C** Children are not at special risk for addiction to narcotics. (True)
- D** Children have little or no memory of a painful experience. (False)
- E** Children are more sensitive to the side effects of analgesics. (False)
-

Comments:

Pain is a subjective experience comprising both sensory and emotional components. There is, therefore, extreme individual variation for any given insult. Because of inabilities to communicate painful experiences, a number of misconceptions have arisen. These include:

1. Children have a higher tolerance to pain.
2. Pain perception in children is decreased because of biological immaturity.
3. Children have little or no memory of a painful experience.
4. Children are more sensitive to the side effects of analgesics.
5. Children are at special risk for addiction to narcotics.

None of these are substantiated by research.
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Convulsions in childhood may be caused by:

- A** fever (True)
- B** teething (False)
- C** hypocalcaemia (True)
- D** phenylketonuria (True)
- E** hypertonic dehydration (True)
-

Comments:

1.This is the commonest cause of convulsions in childhood 2.Teething does not cause convulsions directly or indirectly 3.A well recognised and important cause 4.Now rarely seen because of effective screening procedures 5.An important cause of convulsions especially in infancy

Hypotonia is a feature of

- A** syringomyelia (True)
- B** cerebellar degeneration (True)
- C** glioma of the motor cortex (False)
- D** poliomyelitis (True)
- E** dystrophia myotonica (False)
-

Comments:

Syringomyelia usually involves the cervical region. In the arms there are lower motor neurone signs ... which include hypotonia, loss of reflexes and muscle wasting. There are upper motor neurone signs in the legs.

Glioma would be associated with UMN features. Polio - LMN lesions. Cerebellar degeneration is also associated with hypotonia. Read more on [hypotonia](#)

Herpes simplex encephalitis

- A shows a peak incidence in the Autumn (False)
 - B is associated with a polymorphonuclear pleocytosis in the CSF (False)
 - C produces a diffuse, evenly distributed inflammation of cerebral tissues (False)
 - D produces a diagnostic EEG pattern with lateralised periodic discharges at 2 Hz (False)
 - E should be treated with acyclovir as soon as the diagnosis is confirmed by urgent CSF viral antibody titres (False)
-

Comments:

Winter b - lymphocytosis is characteristic c- Temporal location is typical d seen but not diagnostic e- immediate treatment required on clinical suspicion - don't wait!

Concerning CNS involvement in AIDS:

- A Toxoplasma may give rise to a focal lesion with neurological weakness. (True)
 - B The HIV virus can be isolated from the brain of an encephalopathic patient. (True)
 - C A diagnostic elevation in the CSF IgM occurs in toxoplasmic infection. (False)
 - D Cerebral toxoplasmosis can be treated by Pyrimethamine alone. (False)
 - E Ocular involvement may cause blindness. (True)
-

Comments:

Cerebral toxoplasmosis presents very variably, from an acute encephalopathy to subtle neurological syndromes. It should be considered in all undiagnosed neurological disease in the under ones, especially if there are retinal lesions.

Characteristic are hydrocephalus, seizures with focal defects, spinal or bulbar palsies, microcephaly, and decreased IQ. Investigations such as skull x-ray or CT scan show calcification of the periventricular area, tachyzoites in the CSF and positive blood titres. Pyrimethamine and Sulphadiazine have a synergistic effect in treating it, and folinic acid may be necessary to prevent seizures.

Causes of confusion and seizures in patients with AIDS include.

- A Toxoplasmosis. (True)
 - B Progressive multifocal leuconencephalopathy. (True)
 - C Cryptococcal meningitis. (True)
 - D AIDS-dementia complex. (True)
 - E CMV (True)
-

Comments:

PML is a progressive infection of oligodendroglial cells by JC papovirus in immune deficiency. Invariably fatal, but uncommon in children with HIV. Copyright © 2002 Dr Colin Melville

In herpes simplex encephalitis:

- A brain MRI is characteristically normal (False)
 - B temporal lobe involvement is common (True)
 - C fits are uncommon (False)
 - D cold sores or genital herpes are usually present (False)
 - E viral identification by PCR on cerebrospinal fluid is non-specific (False)
-

Comments:

MRI brain normally shows changes in the temporal lobes. Presenting features include fever, headache, vomiting, reduced consciousness and seizures. There may be dysphasia, hallucinations and peculiar behaviour. There are usually no skin manifestations of herpes simplex infections. The virus is rarely isolated from CSF but may be detected by PMR.

The following applies to neurofibromatosis:

- A It is usually inherited as an autosomal recessive condition (False)
 - B About 50% of new cases are new mutations (True)
 - C The diagnosis demands one or more café au lait patches more than 5mm before the onset of puberty (False)
 - D It is associated with optic nerve gliomas (True)
 - E In children it is usually associated with mental retardation (False)
-

Comments:

Neurofibromatosis is an autosomal dominant condition. New mutations occur in 30-50% of new cases. It is associated with optic nerve gliomas and neuromas of cranial nerve 8. The NIH consensus criteria for diagnosis requires 2 or more of the following: six or more café au lait spots over 5 mm in greatest diameter in a prepubertal individual, two or more plexiform neurofibromas, freckling in the axillary or inguinal regions, optic glioma, two or more Lisch nodules (iris hamartomas), a distinctive osseous lesion such as sphenoid dysplasia and a first-degree relative (parent, sibling or offspring) with NF1. Although mental retardation may be a clinical feature it is not a 'usual clinical feature'

The median nerve supplies

- A the lateral two interossei (False)
- B half flexor digitorum profundus (True)
- C abductor pollicis longus (False)
- D medial lumbricals (False)
- E flexor pollicis brevis (True)

Comments:

The median nerve is composed of fibres from C5-T1. In the hand it innervates Abductor pollicis brevis, Opponens pollicis, ± Flexor pollicis brevis, 1st & 2nd (lateral) lumbricals.

Breath holding attacks:

- A Are commoner over the age of 3 ½ years. (False)
- B Can be confused with a generalised convulsion. (True)
- C May be precipitated by a minor injury. (True)
- D Should be treated with sedatives. (False)
- E Are never fatal. (True)

Comments:

The attacks are commonest in infants and younger children, typically occur during crying and emotional outbursts and there is voluntary holding of breath followed by cyanosis and loss of consciousness. They can be precipitated by crying, minor injuries and convulsive movements develop following cyanosis. The cyanosis always precedes the convulsions. They are self resolving and not fatal.

The following statements about neonatal convulsions are true:

- A Maternal narcotic addiction is a well-recognised cause. (True)
- B Convulsions occurring in the first 24 hours in a baby with an Apgar score of 8 at 5 minutes cannot be due to intrapartum asphyxia. (False)
- C If phenobarbitone is prescribed daily estimations of serum bilirubin are needed because of risks of kernicterus. (False)
- D An abnormal EEG indicates a high risk of later developing epilepsy. (False)
- E A blood glucose level of 1.7mmol/L in a term infant on Day 1 is invariably associated with convulsions or apnoea. (False)

Comments:

Maternal narcotic addiction is associated with a neonatal drug withdrawal syndrome. Convulsions

occurring in the first 24 hours may be the result of placental insufficiency and cerebral palsy. Hypoglycaemia may be associated with seizures, but not invariably. Hepatitis and jaundice are rare side effects, CNS depression is more common with phenobarbitone. An abnormal EEG does not correlate with later risk of epilepsy.
