Writing Assignment 5

[Name of the Writer]

[Name of the Institution]

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**1: Meningitis vs Encephalitis**

Meningitis is the term used to explain the inflammation of protective membranes surrounding the brain and spinal cord. This is usually caused by some bacterial or viral infection but in some cases, injuries, cancer or some drugs are known to induce meningitis too. Treatment is different for specific causative agents. Amoebic and bacterial meningitis are more deadly than other types of meningitis.

Encephalitis is the inflammation of the brain which can be caused by various reasons but viral agents are most popular. Its symptoms resemble those of flu but cause problems related to thinking, senses, movement and sometimes seizures. Sometimes, it proves lethal otherwise timely diagnosis and prognosis can help save a life.

**2. Convulsion vs Seizure:**

A general term used to describe the uncontrollable muscle contractions is called a Convulsion. It may last from a few seconds to a few minutes. These movements can be localized or of the whole body. The causes of convulsions might be epileptic seizures which are disturbances in the brain leading to muscle movement. Convulsions might happen because of medication reactions or migraines.

A sudden electrical disturbance in the brain, which is uncontrollable is termed a seizure. This affects the behavior, consciousness and sometimes movements of the person. Mostly they last from 30 seconds to 120 seconds. It might pose a medical emergency if it lasts for more than 5 minutes. Seizures have no defined cause and happen for a lot of reasons.

**3: Hydrocephalus vs Myelitis:**

Hydrocephalus is caused by the accumulation of CSF (cerebrospinal fluid) inside the brain cavity. This leads to the buildup of pressure causing double vision, mental issues, loss of vision and balance and sometimes personality change. Hydrocephalus can be due to birth defects or sometimes happens later in life due to various reasons like tumors, meningitis, traumatic head injuries or sometimes hemorrhages.

Myelitis is the condition where spinal cord inflammation occurs leading to abnormal brain responses to the body and from a body to the brain. The myelin and axons get damaged resulting in paralysis and loss of senses. It might be infectious or autoimmune. It progresses within hours leading to respiratory, bowel, urinary problems and vomiting.

**4: Epilepsy vs Cerebral Palsy:**

Former is a neurological disorder where brain activity is altered, leading to seizures, unusual behavior and loss of awareness. Anyone belonging to any race or any gender can develop epilepsy but the intensity of seizures vary from person to person. Some people outgrew epilepsy and others have it for a lifetime, requiring treatment and surgeries.

Cerebral palsy is a movement disorder which is permanent and detected at a very early age. Symptoms vary for different people or for the same people at different times of their life. People have a problem with senses, coordination, muscle stiffness and sometimes seizures. Thinking and reasoning problems are also common among them. It is known as an overgrown or overdeveloped parts of the brain related to movement and balance.

**5: Concussion vs Contusion:**

Brain injuries, usually a blow to head, cause a concussion. It leads to temporary loss of brain function with or without unconsciousness. Such people cannot remember what happened to them and have poor reflexes temporarily (Bryan, et al., 2016). Speech, balance and memory loss is a sign. Immediate help is required otherwise it can become deadly or cause disability.

Contusions are a form of hematoma where blood pools inside the body because of a ruptures capillary or blood vessel. These are commonly known as bruises. These contusions can happen to bones too where a high fall or forced movement leads to injury of bone tissues/vessel. Bone contusions are hard to see even on X-rays but MRIs help with proper imaging.

**6: Creutzfeldt-Jacob disease vs Alzheimer’s disease:**

CJD is believed to be caused by prions which are very less understood infectious proteins. This is a degenerative brain disorder that often proves fatal. Almost 70% of people die within a year after diagnosis. Symptoms include blindness, dementia, weakness, involuntary movements, and coma. It spreads through exposure to infected brain or spinal tissue or sometimes inherited via autosomal dominant genes. There is no specific treatment just some drugs like opioids to help with pain.

The Alzheimer’s causative agents are poorly understood; 70% cases are attributed to inheriting multiple genes and rest are head injuries, depression, and sometimes hypertension. It is a chronic neurodegenerative disorder which starts gradually. Almost 60-70% of dementia is caused by Alzheimer's. Patients withdraw from family and friends, mood swings are common, loss of motivation and self-care is observed. Bodily functions decline to lead to death.

**7: Endometritis vs Endocervicitis**

Endometritis is the inflammation of endometrium (inner lining of the uterus). It is commonly caused by an infection during childbirth and might be chronic or acute. Chronic endometritis is caused after menopause whereas acute forms are seen after childbirth, abortion, placing IUD or during menstruation. The symptoms include abdominal pains, bleeding or discharge from vagina accompanied by fever. Antibiotics are used to treat this.

Endocervicitis is also known as cervicitis and is caused by vaginal infection. The infection is caused by sexually transmitted diseases, abortion, uterine surgery or lesions in the uterus during childbirth. The chronic form is easily detected due to vagina discharge, painful intercourse, bleeding between and after a period, abdominal pain and fever but the acute form is asymptomatic. It is treated with antibiotics depending upon the causative agent.

**8: Vaginitis vs Oophoritis**

Vaginitis is very common and most women have it once in life. It is characterized by swelling, itching, burning sensation in the vagina which could be bacterial or yeast, fungal. Some rare cases report protozoa as a causative agent too (Peters, et al., 2014). Antibiotics taken orally can alter the natural microbiota of vagina, pregnancy, damp underwear, poor diet, and vaginal sprays/wash also play a role in these infections. Sometimes it is sexually transmitted. Antibiotics, vaginal wash, and creams are prescribed for it.

Oophoritis is an uncommon diagnosis. It is inflammation of one or both ovaries which is usually bacterial and rarely autoimmune. It also causes damage to fallopian tubes and may result from chronic pelvic inflammatory disease (PID). Symptoms include abdominal pain, heavy menstrual bleeding, bleeding between period and vaginal discharge. Treatment ranges from antibiotics to the surgery depending on the state of ovaries.

**9: Eclampsia Vs Ectopic Pregnancy:**

Eclampsia is a term used to describe the onset of seizures during pregnancy (usually late in pregnancy). Such individuals have pre-eclampsia which is high blood pressure at the beginning of pregnancy, cutting the fetus's oxygen supply from mother. Most cases of eclampsia are the first pregnancy. It requires extra care, monitoring, and diet plans. About 14% of cases result in death.

Ectopic pregnancy is the condition where embryo gets attached outside on uterus. Symptoms include extreme abdominal pain and vaginal bleeding (Kao, et. al., 2014). Rarely such fetus survive. Smoking, chlamydia infection, history of infertility are related to this complication.

**10: Dermoid Cyst and Cervical Cancer:**

A dermoid is a small, sac-like outgrowth of hair, teeth or skin present at the time of birth. Most common places for these cysts are the brain, nasal sinuses, ovarian cysts and in the spinal cord. Mostly these are harmless but if they become painful or change color, they are surgically removed. These are removed for cosmetic reasons too.

Cancerous growth in the cervix is termed cervical cancer. The cells spread from other parts of the body to the cervix. No symptoms are observed on an early stage. Human papillomavirus infections are reported for 90% of such cases. Smoking, weak immune system, multiple sex partners and birth control pills are also responsible. Overall, cervical cancer is the fourth most common cause of death in women. Early detection can help with better treatment.

**11: Orchitis and Prostatitis:**

The former is the inflammation of testes. It also involves the swelling and infection of the epididymis. Symptoms include severe pain, swelling, and blood in urine. Oral antibiotics are used to treat the infection.

Latter is the inflammation of the prostate and sometimes the area around it. It might be acute, chronic or sometimes asymptomatic which is diagnosed while looking for other problems. Reasons for prostatitis can be a microorganism or body's immune response to Urinary tract infection (UTI). Symptoms include pain in lower abdomen, penis, scrotum and in the lower back. Medical tests help in choosing the right treatment for it.

**12: Cryptorchidism vs Hydrocele:**

Absence of one or both testes from scrotum is termed cryptorchidism. It is a birth defect but may develop after infancy. Sometimes these develop in young adulthood. No reason is known for this defect except that extremely premature children are born with this defect. Treatment includes patient waiting for development and in some cases surgery.

Hydrocele is a swelling of scrotum due to a fluid accumulating between testicles and surrounding layer. Commonly observed in newborns, it disappears with time. Older people can develop hydrocele after an injury or inflammation. This is painless but heaviness causes discomfort. It is treated by removing fluid.

**13: Carcinoma of prostate gland vs testicular carcinoma:**

Cancerous cells of the prostate gland are termed as prostate tumor or carcinoma. This is the third most commonly diagnosed cancer in men. Its causes are not fully understood but are linked with higher age. Smoking, unhealthy eating, hormonal and environmental factors also contribute. Diagnosis and assessing the stage helps in prognosis. Rectal bleeding, bowel issues, erectile dysfunction, chronic diarrhea are some of the symptoms.

Testicular carcinoma is a cancer tumor in testicles. A lump, swelling or pain in the scrotum is experienced by the individual. This cancer is curable but results in infertility. Cryptorchidism is a high-risk factor for this.

**14. Osteoporosis and Osteomyelitis**

Osteoporosis is a medical condition in which the bones become very weak. The bones become fragile and brittle and a are at risk of breaking easily.

 On the other hand, Osteomyelitis is an infection of the bones. It is not a very common condition but a very serious issue. The infection may travel in the bones through many sources; the body cells may be infectious and it may pass on in the bones via the bloodstream.

**15. Osteomalacia and Rickets**

Osteomalacia is the conditions of bones in which the bones become soft and brittle, and undergo wear and tear easily. This usually happens due to the deficiency of Vitamin D in the body.

 Rickets is also the weakness and softening of bones but this condition mostly occurs in children. It usually happens due to a very long deficiency of Vitamin D or Calcium in the body.

**16. Bursitis and Arthritis**

Bursitis refers to the inflammation and swelling of a fluid-filled sac under the skin. This sac is called Bursa. It is usually present at the joints and acts as a cushion between the bones and the tendons.

 Arthritis is the inflammation of joints. It may occur on one or more joints. Rheumatoid arthritis and osteoarthritis are the most common types of Arthritis. Arthritis may be shown by stiffness and swelling on the joints with constant joint pains.

**17. Scoliosis and Achondroplasia**

 The medical condition in which a person's spine turns sideways is known as Scoliosis. Usually, the turn in the spine is "S" or "C" shaped. Sometimes the turn is minor but in some cases, the condition may worsen with age.

 The abnormal condition of disproportionate dwarfism is known as Achondroplasia. This a bone growth disorder which results in the abnormally short stature of the body.

**18. Paget’s disease and Osteosarcoma**

A bone disease in which the normal recycling process of the body is affected is called Paget’s disease. This condition is most common in skull, pelvis, spine, and legs. The bones may become misshapen and fragile in this disease.

 Osteosarcoma is the most common type of cancer found in bones and may cause the formation of immature bones. Most of the people suffering from this disease are under the age of 25 and it is mostly found in males rather than females.

**19. Diabetes Mellitus and Diabetes Insipidus**

Diabetes Mellitus is a metabolic condition which is characterized by a high blood sugar level over a longer period of time. It is commonly known as diabetes and if not treated, can become a serious issue over a longer period of time. Common symptoms of Diabetes Mellitus are increased appetite, increased thirst, and frequent urination.

 Diabetes Insipidus includes frequent urination with dilute urine and an increased level of thirst. Even a reduction in water intake does not have any effect on the concentration of urine. A person may produce up to 20 liters of urine in a single day.

**20. Acromegaly and Giantism**

The condition in which the pituitary gland produces an abnormal quantity of growth hormone is known as Acromegaly. As a result of this, the bones of feet, face, and hands. This condition is more common in middle-aged adults.

 Giantism or gigantism is a condition characterized by an abnormal growth in individuals. This medical condition is caused due to the excessive production of growth hormone in childhood and may result in height more than average.

**21. Hypothyroidism and Myxedema**

Hypothyroidism is the condition in which the thyroid gland does not work properly in the body of an individual and does not produce enough hormones that it should be producing. Its symptoms are rarely visible but if not detected on time.it can become really dangerous.

 When the hypothyroidism is not detected an treated on time, it takes the form of a more severe condition, known as myxedema. Myxedema makes the skin appear puffy, swollen and rashed.

**22. Addison’s disease and Cushing’s disease**

Addison’s disease is characterized by the malfunctioning of the entire adrenal cortex. Its symptoms are only visible when 90% of the both of the adrenal cortices stop working.

 When the anterior of the pituitary gland (secondary hypercortisolism) starts abnormally high secretion of (secondary hypercortisolism), its I known as Cushing’s Disease.

**23. Hyperglycemia and glycosuria**

Hyperglycemia is the condition when the blood glucose level is too high. It is a defining characteristic of diabetes.

 Glycosuria is the condition when a high amount of sugar is excreted in urine. This may be caused due to diabetes or any kidney disease.

**24. Grave’s disease and Goiter**

Grave's disease is a disorder of the immune system in which the immune system of an individual attacks the thyroid gland and makes it produce more and more thyroid hormone. It may also be characterized by hyperthyroidism.

Goiter is the abnormal enlargement of the thyroid gland due to the deficiency of iodine in the body (Carlé, et. al., 2014).

**25. Multiple Sclerosis and Parkinson’s disease**

Multiple Sclerosis is a disease of the nervous system in which the protective sheath on the nerves is damaged and it disrupts the communication between nerves and brain.

 Parkinson's disease is also a disorder of nerves in which predominately dopamine-producing ("dopaminergic") neurons are affected in the brain.

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