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1. From our understanding of teratology, Can we say Corona virus is a teratogen and if No/ Yes, Justify your answer

As of now, coronavirus can’t be classified as a teratogen (Any agent that can disturb the development of an embryo or fetus.), as it has failed to cause spontaneous abortion or an alteration in the development of the foetus or embryo, in Neonates born from mothers with the virus so far, due to the fact that Neonates born from mothers with the virus have shown, no anomaly or defect, hence as of now corona virus cannot be classified as a teratogen but that doesn’t rule out the chances of Corona virus being classified as a teratogen later, because currently, There is not enough information to know about any long-term effects of corona virus in pregnancy or children born from mothers with corona virus

1. What are the impact of ageing and environment in the outbreak of this novel Covid 19.?

The fatality rate for people over 80 from COVID-19 is almost 15% according to data.

Why are the elderly more vulnerable to coronavirus?

There are both physical and social reasons. Older people don't have as strong an immune system so they are more vulnerable to infectious disease. They’re also more likely to have conditions such as heart disease, lung disease, diabetes or kidney disease, which weaken their body’s ability to fight infectious disease.

In many countries, they are more likely to be in institutionalized settings like a nursing or retirement home, or living with family in a more crowded situation where there's a greater risk of infection.

The elderly might also have isolation or mobility challenges. So because they're isolated, they can't get information about what to do, or they're not able to get food they need if stores are out of stock and things become more difficult. In many societies, seniors are more likely to live in poverty, which makes it more difficult for them to get the things they need and to take care of themselves. Poverty presents a whole range of challenges pertaining to health.

Another side-effect of the impact of coronavirus on the health system is the elderly will be more likely to die of other causes, right now, older people who have other health conditions, are going to get substandard care because the system is overwhelmed. The elderly is hospitalized on a daily basis at much higher rates than younger people and they are not going to get the quality care they deserve during the outbreak.

1. Summarise the importance of Oogenesis and spermatogenesis
2. **OOGENESIS**: The process of formation of a mature female gamete (ovum) is called oogenesis. It occurs in the ovaries (female gonads). It consists of three phases: multiplication, growth and maturation.

**IMPORTANCE OF OOGENESIS**

1. One oogonium produces one ovum and three polar bodies.
2. Polar bodies have small amount of cytoplasm. It helps to retain sufficient amount of cytoplasm in the ovum which is essential for the development of early embryo. Formation of polar bodies maintains half number of chromosomes in the ovum.
3. During meiosis first crossing over takes place which brings about variation.
4. Oogenesis occurs in various organisms. Therefore, it supports the evidence of basic relationship of the organisms**.**
5. **SPERMATOGENESIS**: The process of formation of sperms is called spermatogenesis. It occurs in the semi­niferous tubules of the testes. The seminiferous tubules are lined by germinal epithelium. The germinal epithelium consists largely of cuboidal primary or primordial germ cells (PGCs) and contains certain tall somatic cells called Sertoli cells (= nurse cells). Spermato­genesis includes formation of spermatids and formation of spermatozoa.

**IMPORTANCE OF SPERMATOGENESIS**

1. During spermatogenesis, one spermatogonium produces four sperms,
2. Sperms have half the number of chromosomes. After fertilization, the diploid chromosome number is restored in the zygote. It maintains the chromosome number of the species,
3. During meiosis I crossing over takes place which brings about variation,
4. Spermatogenesis occurs in various organisms. Thus it supports the evidence of the basic relationship of the organisms.
5. Describe what you understand by personal hygiene and disaster; hence state their correlation if there any.

**Personal hygiene**: Personal hygiene refers to maintaining cleanliness of one's body and clothing to preserve overall health and well-being. It includes a number of different activities related to the following general areas of self-care: washing or bathing, including cleansing oneself after using the toilet; taking proper care of the mouth; grooming and dressing; and keeping clothing clean. Bathing, dressing and undressing, and using the toilet are considered activities of daily living (ADLs), while doing one's laundry is considered an instrumental activity of daily living or IADL.

**DISASTER:** A disaster is a serious disruption occurring over a short or long period of time that causes widespread human, material, economic or environmental loss which exceeds the ability of the affected community or society to cope using its own resources

Three types of disasters are:

1. Natural - Hurricanes, tornadoes, earthquakes, floods, volcanoes, plague etc.
2. Technological - Chemical releases, power outages, natural gas explosions, etc.
3. Man-made - Terror attacks, race riots, mass shootings, etc.

CORRELATION BETWEEN PERSONAL HYGEINE AND DISASTERS

From the beginning of time natural disasters in form of plagues have come and gone With natural disasters like the black death, Ebola, Zika virus and most recently Covid-19 trailed over the history of the world personal hygiene has always been at the centre of the spread and precaution to prevent the spread of them, with humans being advised to take certain precautions (such as washing hands after sneezing, keeping food properly, prevent touching other peoples bodily fluid such as sweat etc) to prevent the spread and manage these Pandemics.

Looking at the current pandemic COVID-19, Current evidence indicates that the COVID-19 virus is transmitted through respiratory droplets or contact. Contact transmission occurs when contaminated hands touch the mucosa of the mouth, nose, or eyes; the virus can also be transferred from one surface to another by contaminated hands, which facilitates indirect contact transmission. Consequently, proper personal hygiene (such as washing hands properly, covering nose and mouth while sneezing) is extremely important to prevent the spread of the COVID19 virus.

Personal hygiene has played and will continue to play an important row in natural disasters in form of plagues. The correlation between Natural disasters and personal hygiene is evident.