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Assignment for viva.

Question: Write a note on cerebrospinal fluid, its circulation and absorption.

Cerebrospinal fluid (CSF) is a clear, colourless body fluid found in the brain and spinal cord .

CEREBROSPINAL FLUID CIRCULATION AND ABSORPTION :

CSF is formed with in the ventricles by small ,delicate tufts of specialized tissue called the choroid plexus. CSF circulatory parthway, Beginning in the lateral ventricles, CSF flw through two passage ways in to third ventricle. Form the third ventricle it flows downa long ,narrow passage way (the aqueduct of sylvius ) in to the fourth ventricle. From fourth ventricle it passes through the three small openings ( foramina ) in to the subarachoid space surrounding the brain and spinal cord . CSF is absorbed through the blood vessels over the surface of the brain back in to the blood stream. Some absorption also occurs through the lymphatic system. Once in blood stream .It is carried away and filtered by our kidneys and liverin the sameway as are our other body fluids.

VENTRICLE SYSTEM IS THE MAJOR PATHWAY FOR THE FLow OF CEREBROSPINAL FLU ID :

CSF lso flows directly from the ventricles in to the brain tissue surrounding them. Here the CSF passes through the space between the cells to where it eventually enters the subarachoid space. It is belived that the brain tissue does not absrb any CSF, but simply provides another pathway for the fluid moving to subarachoid space. Some small amounts of CSF are also absorbed into lymphatic channels along the membranes covering the nerves (nerve sheats) as they leave the brain stem and spinal cord.

Our bodies produce approximately a pint ( 500 ml ) of CSF daily.CSF acts as a cushion or buffer,providing basic mechanical and immunological protection to the brain inside the skull , continuously replacing CSF as it is absorbed. Under normal conditions there is a delicate balance between the amount of CSF that is produced and the rate at which is absrbed.

Hydrocephalus occurs when this balance is disrupted . Alought there are many factors that can disrupt this balance, the most common is a blockage or obstruction, somewhere along the circulatory pathway of CSF. The obstruction may develop from a variety of causes , such as brain tumors, cysts, scarring and infection.