

3. Von Mering discovered that a transient glycosuria may be produced by the administration of phloridzin. This glycosuria is believed to be due to undue permeability of the kidney to glucose.

4. Minkowski and von Mering showed that in a dog complete ablation of the pancreas produces permanent glycosuria. If about one-fifth of the pancreas is left, glycosuria does not supervene. If the residual pancreas is less than one-fifth, diminished capacity for the utilization of carbohydrates ensues. This last condition is similar to that observed in the milder forms of diabetes mellitus in man.

5. Necropsies of diabetic patients have shown the presence of disease of the pancreas in a considerable number of cases. However, the morbid findings have been somewhat variable, arterio-sclerosis, hyaline degeneration of the islands of Langerhans, etc., and these have not been shown to have been the cause of the perversion of carbohydrate metabolism. On the other hand, no morbid condition of the pancreas has been found in many cases.

6. Claude Bernard demonstrated that, in a dog, puncture of the apex of the calamus scriptorius in the fourth ventricle produces a temporary glycosuria, which is believed to be due to a hyperglycemia from over-conversion of the glycogen of the liver into glucose.

7. Temporary glycosuria is common in many diseases of the nervous system, such as cerebral tumor, meningitis, epilepsy and multiple neuritis.

8. Carbon monoxide, carbon bisulphide, curare, morphine, amylnitrite and a great number of other poisons, administered to animals, may produce a temporary glycosuria.

9. In some patients suffering from Graves' disease, traumatic neurosis, alcoholism and high fevers, and also in some persons apparently healthy, the administration of a meal very rich in sugar—say 100 grammes of cane sugar—produces glycosuria. This condition is usually called alimentary glycosuria. It is also called glycosuria e saccharo.

10. A dog with Eck's fistula is in the condition of glycosuria e saccharo. This has been observed by Popelski and de Fillipi.

11. Cases of permanent glycosuria exhibit great variability in their ability to utilize sugar. In the mild forms glucose only appears in the urine when carbohydrate is taken in considerable amount by the mouth; in the severe glucose continues to be excreted in the absence of carbohydrate in the food. Between these two extremes there are cases of medium severity.