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The effect of virus on diabetes mellitus**Soumik Laha**

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Diabetes mellitus is a group of metabolic disease which caused due to defects of insulin secretion. According to new research several viral infections can develop diabetes. Mainly the virus can attack β -cells and affected the pancreatic cells for insulin secretion. Several types of virus like enteroviruses, Rubella virus, Coxsackievirus B (CVB), Cytomegalovirus (CMV), Epstein-Barr virus, Mumps virus, Varicella zoster virus have been suggested to be associated with type-1 diabetes. Among them enteroviruses are more susceptible to increase type-1 diabetes. Enteroviruses target β -cells through surface molecules. Virus infections attacked on β -cells and promote strong inflammations in islets. Viral infections unmask the β -cells and cause up-regulation of MHC class I molecules on β -cells. When β -cells are damaged and APCs uptake auto-antigen then initiation of autoimmunity occurs. Type 1 Diabetes occurs when 90% of B cells are damaged. If virus attacks the β -cells and manages to destroy the cells, then there is a high chance of diabetes. From another research, some viruses contain protein that can mimic insulin and can produce insulin like hormone which can cause diabetes. So, the virus infections have a strong influence in diabetes mellitus.

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