

the most clinical signs supporting correct diagnosis of monkeypox

TREATMENT: There are no treatment specifically for monkeypox virus infections. However, monkeypox and smallpox viruses are genetically similar, which means that antiviral drugs and vaccines developed to protect against smallpox may be used to prevent and treat monkeypox infections. Antiviral compounds such as cidofovir, tecovirimat (TPOXX), may be recommended for people

FDA APPROVED DRUGS

NAME OF THE DRUG	INDICATION	DOSAGE FORM
Furoscix	To treat congestion due to fluid overload in adult with chronic heart failure	INJECTION
Tecvayli	To treat relapsed or refractory multiple myeloma	INJECTION
Elahere	To treat ovarian, Fallopian Peritoneal Cancer	INJECTION
Tzield	To delay the onset of stage-3 type I diabetes	INJECTION
Rezlidhia	To treat acute myeloid leukemia	CAPSULES
Krazati	To treat Non-small cell lung cancer in adult patients	TABLETS

Mr. Gokulraj III B.Pharm

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DNA SEQUENCING AND GENOMICS RESEARCH

DNA sequencing and genomics research has led to many medical discoveries and is helping to advance our knowledge of genetic disease and other medical conditions

The technology behind DNA sequencing has been around for some time, but it was only recently that it became more affordable and efficient.

Today, the cost of sequencing an entire genome has dropped significantly and can be completed in a short amount of time. This technology can be used not only for sequencing human DNA, but also for sequencing the DNA of various other organisms.

And while genomics research is beneficial for medical research, it has also made it easier for researchers to breed new varieties of plants and animals. With DNA sequencing, researchers can determine the genes of an organism and can predict the traits that organism will pass on to its offspring.

DNA sequencing is helping to advance research in a variety of different fields. It is particularly useful for helping researchers to identify infectious diseases and viruses, find a cure for them, and develop treatments for them.

Mr. Chandru IV B.Pharm

PATHOPHYSIOLOGY OF ARTEROSCLEROTIC CARDIOVASCULAR DISEASE:

The underlying pathophysiology of atherosclerotic cardiovascular disease (ASCVD) in diabetes is multifactorial which now no longer most effective entails macro vascular formation however additionally continual insults at numerous mobile and molecular stages because of hyperglycemia and insulin resistance

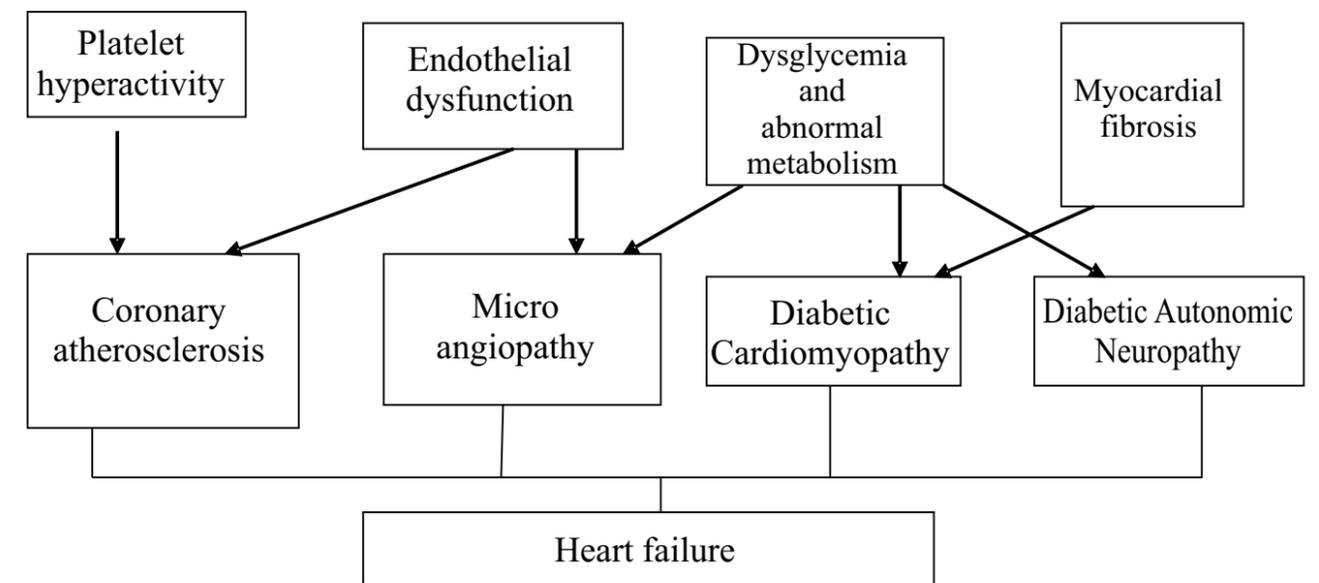
Obesity mainly visceral weight problems which frequently precedes improvement of kind 2 diabetes (T2DM) is related to different metabolic danger elements consisting of insulin resistance, atherogenic dyslipidemia, hypertension, and a pro-thrombotic and pro-inflammatory state. Concentrations of pro-coagulants factor such as a fibrinogen, protein C, and von willebrand factor are elevated in individuals with obesity compared to lean individuals, which along with increased levels of plasminogen activator inhibitor-1 generated a prothrombotic state. Additionally, multiplied manufacturing of angiotensinogen and aldosterone from an accelerated adipocyte mass turns on the renin angiotensin aldosterone system (RAAS) and in turn indicates vascular stiffness and hypertension.

Insulin resistance as visible as visible in obesity, pre-diabetes and diabetes promotes atherosclerosis via improvement of vascular stiffness, hypertension, diabetic dyslipidemia and improved systemic and vascular tissue inflammation. Reduction in endothelial nitric oxide (NO) synthase and NO manufacturing in conjugation with improved manufacturing of endothelin and adhesion molecules result in endothelial cellular dysfunction, vascular stiffness and improved access of inflammatory cells into the vasculature setting plaque formation. Hyperglycemia promotes CVD with the aid of using some of mechanisms elevated glucose tiers result in the activation of protein kinase C, the polyol and hexamine pathways with expanded formation of superior glycation end-merchandise which use up intracellular anti-oxidants and accumulation of radical oxygen species. Excess radical oxygen species causes endothelial dysfunction via mitochondrial injury and reduced endothelial NO production.

Furthermore, a hyperglycemic environment in animals models has shown to cause increased glucose uptake in vascular smooth muscle cells leading to impaired contractility induction of a pro-inflammatory and atherogenic vascular smooth muscle cell phenotype in response to various vascular injuries.

Ms. Anusiya IV B.Pharm

FIG 1. Represents the pathophysiology of heart failure in diabetes mellitus



MONKEY POX VIRUS

DEFINITION: Monkeypox is a viral zoonotic disease that occurs primarily in tropical rainforest areas of central and west Africa and is occasionally exported to other regions

Human infection with monkeypox virus occurs most frequently in the 5-9 year old age group, particularly in small villages where the children hunt and eat squirrel and other small mammals

ETIOLOGY: The causative agents of monkeypox are variolaviruses, which belong to the species of orthopoxvirus. When it infects humans as an epizootic, it produces a similar clinical picture to that of ordinary human smallpox

SIGNS AND SYMPTOMS OF MONKEY POX:

Fever

Headache

Muscle aches and backache

Swollen

Chills

Exhaustion

A rash that can look like pimples or blisters that appears on the face, inside of the mouth, and on the other parts of the body like hands, feet, chest, genitals, and anus

Ms. Pradhira III B.Pharm

DIAGNOSIS: The presence of lymphadenopathy, pre-eruptive fever, and slower maturation of skin lesions are