Abstract
Liver is uncovered to several risks that lead to damage its cells. Liver is a gland which then accumulate toxic drugs. The multiple cells exposed to damage by a numeral of viruses, which most notably C virus. Many researches focused on many of the researches describing the roles of the liver and the degree of resistance to this virus. Many scientists clarify a lot of information about the risk of revelation to viruses and toxins, which in turn lead to the existence of multiple damaged areas of the liver. This information highlights the need to find an effective method for the synthesis of real estate can revive the liver cells. This paper provides an analytical model for the assets specifications which can be used in the progression of revival of the liver. The proposed model considers important limitations that govern the actions of the drug and its affect on the cell for example, substrate concentration, specific growth rate of infected cells, specific growth rate of the drug , rate of input of drug to the infected cell volume and the concentration of the drug. The results of research show that the proposed analytical model visualizes this property to the specifications of any of the types of liver cells. The proposed model puts the perception of the degree of concentration of the right property for the process of revival of the liver cells.

Keywords: Liver cells, Cell death, Cell recovery, Drug infusion, Drug concentration

1 INTRODUCTION

The liver is the largest gland in the body consists of two lobes which are wedge-shaped. blood vessels enter the liver, the hepatic portal vein with dissolved food substances from the small gut, and the hepatic artery, with oxygenated blood from the lungs. At the lowest of the liver there's an area to go into and go out the blood vessels and the bile duct and the call of this vicinity the door of the liver, in which he enters the hepatic artery and the yellow channel rising from the liver and the portal vein coming from the intestines and enter the liver. This artery, veins and canal walk in the unfastened fringe of the small tibia, that is the two layers of the peritoneal membrane strolling from the liver to the belly and in its loose part there are these arteries and veins. these two layers of the peritoneal membrane adhere to the liver. The adhesion website online is referred to as the venous ligament and its unfastened parenchyma damages the hepatic portal. Venous ligament is positioned within the liver in a deep location and extends to the lower vena cava. there is every other vicinity in the liver in which a ligament known as the spherical ligament called hepatic extends to the umbilicus and is known as the extension website online of the hepatic sickle ligament. The liver produces maximum of the blood clotting proteins. if you say the affected person is bleeding. The liver cells produce inexperienced bile fluid. it's miles saved in the bile ducts and excreted in the small intestine. Bacterial fluid consists of ldl cholesterol, phosphorus and bilorubin as a result of the breakdown of hemoglobin, purple blood cells and yellow salts that dissolve fats at some stage in intestinal digestion and assist soak up it.

After the access of the hepatic artery and portal vein to the liver, the blood is blended with each different and is filtered from poisonous and dangerous substances. Blood then goes through the liver veins into the massive vein this is in the back of the liver and ascends to the right side of the coronary heart. The 4 principal cellular kinds that are located within the liver are hepatocytes (H), stellate cells (S), sinusoidal endothelial cells (SE) and Kupffer (ok) cells. Hepatocytes are the almost all common devices of the liver. they're repeatedly multinucleated and tetraploid, with the quantity of nucleus, abnormal and smooth endoplasmic reticulum in shape evolved, numerous cisternae of Golgi, ribosomes, lysosomes, mitochondria, peroxisomes as depicted in figure1. The tolerogenic assets of the liver render it an eye catching route for pathogens. even though almost all pathogens that gain the liver via the blood are eradicated with the aid of confined instinctive immune comebacks, a amount of pathogens along with hepatitis viruses can break out resistant run and stick with in hepatocytes, sourcing vast mortality worldwide.

Organisms that cart virus can pass through the blood rivulet into the liver and shape a swelling, a compilation of impure tissue cause what is called Liver cell death. Drug-encouraged liver toxicity is a widespread source of liver death. The noteworthy character of the liver in the body highlights the necessity of the trials of revive its damage cells[1-28].

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