Association between glucocorticoids treatment and viral clearance delay in patients.

Ju Wang*

Department of Pathology, China Medical University, Shenyang City,China

Accepted on 24 August, 2021

Introduction

Glucocorticoids are a type of corticosteroid hormone that is very effective at reducing inflammation and suppressing the immune system. Inflammation is the way our immune system responds to harmful substances and trauma and is part of our healing process. However, if the usual control mechanisms that turn the process of inflammation off aren't functioning properly and it continues unabated, our tissues can become damaged. Continued inflammation is associated with many chronic conditions including betamethasone Celestone Soluspan. When given at recommended dosages for short durations of time, glucocorticoids are considered safe. One-off doses of glucocorticoids, even if they are large, or short-course therapies of less than one-week have few harmful effects. However, more regular or extended dosing has been associated with a number of severe side effects.

Many health problems involve inflammation. Glucocorticoids are effective in stopping damaging inflammation caused by many immune system disorders. These drugs also have many other uses. However, they also come with side effects. These can be severe, especially if you use these drugs too long. Glucocorticoid drugs are man-made versions of glucocorticoids, steroids that occur naturally in your body. They have many functions. One is to interrupt inflammation by moving into cells and suppressing the proteins that go on to promote inflammation. They also help your body respond to stress and regulate how your body uses fat and sugar. Because glucocorticoids have so many functions, man-made or synthetic glucocorticoids have been developed to help treat many different conditions. There seem to be no cells that lack glucocorticoid receptors and as a consequence, these steroid hormones have a huge number of effects on physiologic systems. That having been said, it can be stated that the best known and studied effects of glucocorticoids are on carbohydrate metabolism and immune function.

Glucocorticoids have potent anti-inflammatory and immunosuppressive properties. This is particularly evident when they administered at pharmacologic doses, but also is important in normal immune responses. As a consequence, glucocorticoids are widely used as drugs to treat inflammatory conditions such as arthritis or dermatitis, and as adjunction therapy for conditions such as autoimmune diseases. Glucocorticoids have multiple effects on fetal development. An important example is their role in promoting maturation of the lung and production of the surfactant necessary for extrauterine lung function. Mice with homozygous disruptions in the corticotropin-releasing hormone gene (see below) die at birth due to pulmonary immaturity.

Several aspects of cognitive function are known to both stimulate glucocorticoid secretion and be influenced by glucocorticoids. Fear provides an interesting example of this. Fear-inducing stimuli lead to secretion of glucocorticoids from the adrenal gland, and treatment of phobic individuals with glucocorticoids prior to a fear-inducing stimulus can blunt the fear response.

Excessive glucocorticoid levels resulting from administration as a drug or hyperadrenocorticism have effects on many systems. Some examples include inhibition of bone formation, suppression of calcium absorption and delayed wound healing. These observations suggest a multitide of less dramatic physiologic roles for glucocorticoids. Cortisol secretion is suppressed by classical negative feedback loops. When blood concentrations rise above a certain theshold, cortisol inhibits CRH secretion from the hypothalamus, which turns off ACTH secretion, which leads to a turning off of cortisol secretion from the adrenal. The combination of positive and negative control on CRH secretion results in pulsatile secretion of cortisol. Typically, pulse amplitude and frequency are highest in the morning and lowest at night. Cushing's disease has widespread effects on metabolism and organ function, which is not surprising considering the ubiquitous distribution of glucocorticoid receptors. A diverse set of clinical manifestations accompany this disorder, including hypertension, apparent obesity, muscle wasting, thin skin, and metabolic aberrations such as diabetes.

*Correspondence to

Dr. Ju Wang

Department of Pathology

China Medical University

Shenyang City

China

E-mail: wangju@hotmail.com