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Pioglitazone reduces risk for heart attack and stroke in insulin resistance, pre-diabetes and DM type 2 patients

The risk of developing a heart attack and stroke is higher in individuals who are diabetic, those with pre-diabetes and insulin resistance. It is paramount that these group of people are targeted for appropriate management to lower their risk of developing these dreadful, often fatal, cardiovascular outcomes.

In a latest systematic review and meta-analysis of researchers from Taiwan and the US¹, pioglitazone was evaluated in people with insulin resistance, pre-diabetes and diabetes (DM) type 2.

Pioglitazone is an antidiabetic drug under the thiazolidinedione class that brings down blood glucose levels.

The study comprised of nine randomized controlled trials with more than 12000 participants, who

were randomly assigned to the pioglitazone group or the control/placebo group. All studies have at least 1 year of follow-up for all participants.

Results showed that patients with



prediabetes or insulin resistance, and those with DM who were taking pioglitazone are associated with lower risks of cardiovascular outcomes, such as heart attack and stroke, compared to those who were not. These beneficial effects of

pioglitazone are valuable to both diabetics and those with impaired glucose tolerance and/or insulin resistance. With the latter group of patients suggesting that with this drug, progression to diabetes can be delayed. Thus, the development of complications related to diabetes can be prevented.

Although, this study presented the favorable use of pioglitazone, it also revealed safety concerns for this particular antidiabetic drug. The more concerning safety issues were retention of fluid or formation of edema, heart failure and weight gain. It is, therefore, important that patients with prior heart failure and those with edema are given this drug cautiously. Patients who are provided with pioglitazone should regularly visit their general practitioners so that

these severe adverse effects can be prevented.

Nevertheless, pioglitazone is significant as a drug for use in patients with insulin resistance, pre-diabetes and diabetes because it

lowers the risk of cardiovascular outcomes in these patients.

Statins may reduce risk of blood clots in the vein, study shows

Blood clot formation in veins (venous thromboembolism, VTE) is a condition that can result in either Deep Vein Thrombosis or Pulmonary Embolism, of which the latter can be fatal. This condition can be a result of inherited or acquired risk factors known as hypercoagulable states.

Medications to aid in prevention of this condition has been continually studied.

One recent analysis² of 36 studies, with more than 3 million participants, by researchers in the UK found that statins, a lipid-lowering drug used in cardiovascular disease prevention, are associated in lowering the risk of venous thromboembolism, in particular deep vein thrombosis. Further, they also establish that rosuvastatin has the lowest risk on VTE among all other statins used. This particular beneficial effect of the statins is promising and may pave the way for its usage in venous blood clot prevention. However, further researches are still needed to corroborate the findings of this study.

For longer life, eat red chili; study reveals

Food has been important for body sustenance. But a healthy, balanced diet is considered by health experts to be valuable in maintaining a fit body and mind, as well as prevent diseases.

Diet has been constantly studied to determine its role in health. One such current study investigated consumption of red chili pepper and longevity of life³. Based on the analysis of data from the National Health and Nutritional Examination Survey that has more than 16000 respondents, the researchers found that consuming hot red chili peppers lowers mortality by 13%.

Additionally, similar reductions were also seen in specific cause of mortality, such as heart disease and stroke.

While the mechanism behind chili peppers delaying mortality is still uncertain, it is believed that capsaicin, the active component found in chili peppers, may defend against cardiovascular disease and has antimicrobial properties. It is plausible that these effects may have contributed to longer life of people who consume chili peppers.

The results of the study provides further evidence that red chili peppers may be beneficial component of a healthy diet.

This, however, does not mean that people start having multitudes of

chili peppers; but, rather, consume minimal to moderate amounts of chili peppers.

The exact portion size of intake is still undetermined and needs to be further studied.



Diabetics regularly monitor their sugar levels to ensure controlled levels in order to prevent complications, and to identify hypo/hyperglycemic states.

Conventionally, glucose levels can be investigated via collection of blood samples. As this requires an invasive procedure, risks associated can include needle anxiety and blood-borne infections. Consequently, other ways to check for glucose levels besides blood have been studied and investigated.

Monitoring diabetics' glucose level may be achieved via saliva, study shows

In a recent analysis comprising of ten studies with more than 600 participants⁴, it revealed the relationship of glucose in the saliva and glucose in the blood in monitoring sugar levels in patients with diabetes mellitus type 1.

The investigators found that there is positive association between glucose levels from saliva and blood

in type 1 diabetics. In other words, glucose in the saliva is comparable to glucose levels found in blood. However, this

comparison showed a mixed weak to strong association.

Despite a promising result, the use of salivary glucose in monitoring glucose levels still needs further research to determine the sensitivity and specificity of this alternative in monitoring glycaemia. Nevertheless, it opens the possibility of such option for diabetics in the near future.

Mediterranean diet alleviates symptoms of depression, study reveals

Mediterranean diet is considered by dietitians and clinicians as a healthy diet that has been associated with chronic disease risk reduction. It is composed of plant-based foods, such as fruits and vegetables, whole grains, legumes and nuts; healthy fats such as olive oil and canola oil; fish and limited red meat.

In a latest clinical trial conducted by researchers from Australia⁵, a modified Mediterranean diet was investigated to determine if it improves symptoms of depression.

The trial consisted of 67 volunteers,

who have moderate or severe depression, and were randomly provided to receive either the dietary support or the social support. The intervention lasted for 12 weeks.

Outcomes, at the end of the study, depicted that significant improvements on symptoms of depression were noted in those who received the dietary support compared to those who received the social support. These improvements were independent of any changes in weight, rates of smoking and physical activities.

The authors concluded that adhering to current recommended diets may be useful as a management option for patients with depression. They recommended that further studies need to be made that addresses a larger sample size and assessments in more than two time points.

Nonetheless, a healthy diet, such as the Mediterranean diet, does not only lowers risk from cardiovascular diseases and diabetes but may also alleviate symptoms of depression.

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