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تأثير تريجونيلين على التغيرات الأيضية والبيوكيميائية المصاحبة لمقاومة الأنسولين بالجرذان

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Cairo University
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Effect of Trigonelline on the Metabolic and Biochemical Changes Associated With Insulin Resistance in Rats

Thesis Presented
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For
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ABSTRACT

The present study was designed to evaluate the effect of trigonelline (TRIG) on the metabolic and biochemical changes associated with high fat high fructose induced- insulin resistance in rats. Rats were rendered insulin resistant by adding high-fat diet (60 kcal/100 kcal saturated fat) and 10% fructose in the drinking water] for 8 weeks,. The effects of TRIG in doses (50 and100 mg/kg) were evaluated compared with sitagliptin (SITA), the standard anti-diabetic drug, in a dose (5 mg/kg). Moreover, the study was extended to evaluate the effect of the combination between TRIG and SITA in a dose (50 mg/kg) + (5mg/kg). The obtained results showed that TRIG has a beneficial effect on the hepatic complications associated with insulin resistance in rats due to improving the insulin signaling pathway and its antihyperlipidemic effect. The study concluded that concomitant treatment with TRIG and SITA has a promising effect on the metabolic and biochemical changes and molecular alterations associated with insulin resistance.

قَالُوا

سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا

عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ

صدق الله العظيم

سورة البقرة (٣٢)

Dedicated to

<u>My Father (Abdelfatah Abdallah Abdelfatah Sedik)</u>

<u>My Family</u>

To whom I am deeply grateful for their extreme support and their indefinite patience

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