

**STUDIES ON AN ORALLY ACTIVE HYPOGLYCAEMIG
PRINCIPLE FROM FENUGREEK SEEDS
(*Trigonella Foenum Graecum*)**

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Fenugreek seeds contain an alkaloid trigonelline and nicotinic acid both of which were reported to have mild and transient hypoglycaemic activity. There are some studies on the hypoglycaemic activity of decoctions of seeds and whole seed powder even in humans. Coumarin is reported to be present in fenugreek seeds and known to be a carcinogen and this limits the use of water extract and whole seeds in human. Therefore a new hypoglycaemic principle was isolated from fenugreek seeds. The activity of various fractions were tested in alloxan recovered (AR) rabbits. These rabbits, which recovered in about 30 days from the effects of alloxan had near normal fasting blood glucose (FBG) levels but impaired glucose tolerance as indicated by its normal GTT pattern. This principle appears to be different from trigonelline and nicotinic acid by UV and visible absorption spectrum, HPLC elution pattern and RF value by thin layer chromatography. The isolated principle was active at a dose of 50 mg per Kg in both AR and severely diabetic rabbits. In AR rabbits there was considerable improvement in glucose tolerance without decreasing FBG level. In severely diabetic rabbits there was fall in FBG level. The effect was longer lasting. It enhanced the glucose induced insulin release in oral GTT. In a one week study in AR rabbits it seemed to improve lipid parameters initially such as HDL Chol esterolmubh more while there was only slight increase in the activity of kep enzymes of glycolysis. Therefore, the compound has both pancreatic effects.

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