allied INTERNATIONAL OBESITY, BARIATRIC AND METABOLIC SURGERY SUMMIT AND EXPO August 23-24, 2017 | Toronto, Canada

Nano sized soy phytosome-based thermogel formulation for treatment of obesity, characterization and In vivo evaluation

Nermeen M Abd El-Sater¹, Shahira F El-Menshawe², Adel A Ali² and Mohamed A Rabeh³ ¹Nahda University, Egypt ²Beni-Suef University, Egypt ³Cairo University, Egypt

besity has become an increasing problem over recent Oyears. Nano lipo-vesicles hydrogels of soy saponin were formulated and evaluated in an attempt to reduce the size of adipose tissue cells through percutaneous absorption. Phytosome formulations were prepared with four different techniques namely: Solvent evaporation, anti-solvent precipitation, co-solvency and mechanical dispersion. Best formulae was selected by the means of the highest entrapment efficiency, minimum particle size and maximum drug release and then evaluated for successful complex formation by means of FTIR. Particles zeta potential was detected and particles shape was evaluated using TEM

to insure particles spherical shape. Selected phytosome formulae were involved into selected hydrogel formulae after evaluation of different plain hydrogel formulations for its clarity. Homogenity, pH, gel transforming temperature and viscosity study obtained phytosomal hydrogel formulae was then re-evaluated for its clarity, homogeneity, pH and gel transforming temperature and for its rheology behavior and permeation study. In vivo study was done to ensure anti -obesity effect of soy phytosomal hydrogel. Concisely, soy phytosomal hydrogel was found to have the ability to reduce the size of adipose tissue cells in male albino rats.

e: nermeen.magdy@nub.edu.eg