A scientific seminar on the **Possible Protective Role of Nicardipine Against Dextran Sulfate Sodium-Induced Ulcerative Colitis in Mice Compared to 5-Amino Salicylic Acid**

delivered by Pharmacist Ali Mahmoud Shakir, the PhD student at the Pharmacology and toxicology Department.

The seminar aimed to determine whether nicardipine could suppress inflammation in a dextran sulfate sodium (DSS) colitis model in mice. It also evaluated the anti-inflammatory effect of nicardipine in ulcerative colitis, in comparison to 5-Amino Salicylic Acid (5-ASA).

The seminar included several topics, including an introduction to ulcerative colitis, nicardipine, 5-ASA, the pathophysiology of ulcerative colitis, the mechanism of action of nicardipine, and its role in ulcerative colitis. The seminar concluded that nicardipine, a calcium channel blocker of the dihydropyridine class, is commonly used to treat hypertension. However, recent studies suggest its potential role in alleviating colitis. Nicardipine exerts its anti-inflammatory effects by reducing the production of inflammatory cytokines, such as tumor necrosis factor-alpha (TNF-α) and interleukin-6 (IL-6), thereby diminishing the inflammatory response. In animal models of dextran sulfate sodium (DSS)-induced ulcerative colitis, nicardipine demonstrated a protective effect by reducing mucosal damage and improving histological parameters.

It also outperformed 5-ASA, the conventional treatment for colitis, in certain aspects, indicating its potential as a novel therapeutic option. Based on these findings, nicardipine may represent a promising approach for treating colitis through its anti-inflammatory properties. However, further clinical studies are needed to confirm its efficacy and safety in humans.