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## Prevalence of Upper Gastrointestinal Symptoms in Chronic Kidney Disease Patients and Variation of Symptoms with Proton Pump Inhibitors Usage

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**Background:** Gastrointestinal (GI) complications are more frequent and vary among different stages of Chronic Kidney Disease (CKD) patients who receive various treatment plans. Proton Pump Inhibitors (PPIs) are prescribed to prevent GI complications of CKD patients worldwide. It is identified as a plausible risk factor for CKD where there is an obvious relationship with a renal disease development. A higher prevalence of bowel symptoms with mainly abnormal bowel habits, bloating and abdominal pain are manifested in patients treated with PPIs. The current study was designed to evaluate whether there is a relationship between PPI usage and the upper GI complications in pre-dialysis CKD patients.

**Objectives:** The major objective of the study was to investigate the prevalence of upper GI symptoms in pre-dialysis CKD patients and to compare the variation of GI symptoms with PPI usage.

**Methodology:** This was an observational cross-sectional study conducted in the renal and dialysis unit, Teaching Hospital Kandy through a researcher administered questionnaire. The sample consisted of 300 pre-dialysis CKD patients; 243 patients with upper GI symptoms and 57 without upper GI symptoms. The symptoms were identified using 9 items in the Gastrointestinal Symptom Rating Scale (GSRS) tool.

**Results:** The overall prevalence of 81% upper GI symptoms was manifested by CKD patients and bloated stomach was more common. Further, patients on PPI showed 86.7% occurrence of upper GI symptoms compared to patients were not on PPI (80%). Bloating, rumbling and burping were more frequent in patients who were on PPI (59%, 43.6% and 43.6%, respectively). Upper GI symptom scale of CKD patients who were on PPI prevailed a significant difference compared to patients who were not on PPI ( $p=0.0073$ ).

**Conclusions:** A higher prevalence of upper GI symptoms and variance in upper GI symptoms were experienced by pre-dialysis CKD patients who were on PPI. Therefore, prescribing PPI for CKD patients should be concerned and studied in the future.

**Keywords:** *CKD, Upper GI symptoms, Proton Pump Inhibitors (PPI), Gastrointestinal Symptom Rating Scale (GSRS), Bloating, Bloating*