Background: Newer targeted chemotherapeutics have led to a remarkable improvement in the survival of cancer patients but also has resulted in the increased incidence of uncommon but specific muco-cutaneous adverse effects. This study aims to highlight such lesser known cutaneous adverse drug reactions and derive a causal association.

Objective: Clinical assessment of spectrum of muco-cutaneous toxicities by targeted chemotherapeutic agents, study their dose dependence and establish causal relationship.

Materials and methods: An observational, hospital based, cross-sectional, descriptive study carried out in the dermatology outpatient department between August 2016-18, after obtaining ethical clearance. Patients referred from the state cancer institute, who developed muco-cutaneous lesions after the initiation of chemotherapy, were included in the study. Causality assessment was done by clinico-pathological correlation and WHO UMC criteria.

Results: A total of hundred patients, 74 males and 26 females of mean age 45.83 ±16.37 years (range 4-70 years) who developed muco-cutaneous adverse effects after initiation of chemotherapy were included in the study. Amongst them, papulo-pustular and acneiform eruptions was found in twenty seven patients (27%), PRIDE complex (papulo-pustular eruptions and/or paronychia, regulatory abnormalities of hair growth, itching, dryness) was seen in five patients on Epidermal Growth Factor Receptor Inhibitors. Seventeen patients (17.00%) developed palmar-plantar erythrodysesthesia, fourteen patients (14%) developed lichenoid dermatitis while on Imatinib and seven patients on Bleomycin combination chemotherapy developed flagellate dermatitis. Twenty three (23.00%) patients showed nail changes, most common being melanonychia.

Conclusion: There has been a paradigm shift in the management of both hematopoietic and solid cancers with the advent of targeted chemotherapeutic drugs leading to an increase in uncommon and specific drug reactions. Early recognition of these decreases morbidity, improves quality of life and allows continuation of the life saving chemotherapy.