DERMATOLOGIC ADVERSE EVENTS TO SYSTEMIC ANTINEOPLASTIC TREATMENTS: PREVALENCE AND IMPACT ON QUALITY OF LIFE IN TWO TREATMENT CENTERS IN CAMEROON

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Table 1: Derrmatologic adverse events (dAEs), site affected, and severity

Variable	Number of cases (%)
Type of dAE, N	N= 526
Alopecia	66
Melanonychia	59
Hyperpigmentation of skin	54
Oral mucositis	48
Xerosis	46
Pruritus	34
Oral cavity hyperpigmentation	27
Supravenous serpentine hyperpigmentation	23
Hand foot syndrome	21
Others[a]	148
Site of dAE, N (%)	N= 99
Patients with only one site	16 (16.2)
Patients with two sites	30 (30.3)
Patents with > two sites	53 (53.5)
Severity of dAE (CTCAE) N (%)	N= 526
Grade 1	336 (63.9)
Grade 2	154((29.3)
Grade 3	34 (6.5)
Grade 4	2 (0.4)

a: Extravasation injuries, Steven Johnson syndrome. Paronychia, Onycholysis, Hypopigmentation of the skin, Rashes, photosensitivity
dAE: Dermatologic Adverse Event
CTCAE: Common Terminology Criteria for Adverse Events

Table 2:Multivariate analysis showing predictors of QoL

Variable	N	Global Skindex 16 Median (IQR)	p
Sex			
Male	24	50.9 (0.5 – 75.9)	0.3
Female	85	16.6 (2.1 – 49.9)	
ECOG / WHO score			
0	4	4.2 (1.1 – 22)	0.005
1	53	9.4 (0 – 2)	
2	37	40.8 (7.1 – 67.7)	
3	15	62.7 (15.4 – 88.4)	
Skin as site			
Yes	82	30.8 (7.4 – 64.3)	0.01
No	27	0.0 (0.0 – 16.4)	
Pruritus			
Yes	34	53.2 (17.6 – 68.1)	0.02
No	65	14.4 (0 – 36.4)	
Grade of mucositis			
Grade 1	23	17.6 (0 – 50.1)	0.03
Grade 2	15	19.5 (5.6 – 48)	
Grade 3	10	33.3 (25 – 41.7)	

ECOG: Eastern Cooperative Oncology Group; WHO: World Health Organization

A: Grade 4 extravasation from doxorubucine; B: Grade 3 onycholysis/ paronychia; C: Grade 3 HFS after capecitabine D: Grade 3 oral mucositis at the Yaoundé and Douala General Hospitals

INTRODUCTION

- In 2022, Cameroon had 19,564 diagnosd cancer cases with almost 13,000 deaths occuring, making a mortality- to-incidence ration of 65%.[1]
- Several advances have been made in the treatment of cancer with systemic therapies being the cornerstone of these treatments.[2]
- These treatments are not free of side effects and those on the skin and its appendages are usually prominent.[3]
- Dermatologic adverse events are not usually life—threatening, and they tend to be underestimated.[4]
- We therefore set out to evaluate the prevalence of these adverse effects in two treatment centers in Cameroon and determine how these impact the quality of life of the patients.

MATERIALS AND METHODS

- We carried out a cross-sectional, prospective, and analytical study at the oncology units of the Yaoundé and Douala General hospitals for a period of 8 months.
- Included in our study were, all patients with an anatomopathological confirmation of cancer, at least 18 years of age, had received at least 1 cycle of chemotherapy and gave their consent.
- We excluded all patients who were on chemoradiation treatment and had prior history of skin diseases.
- A four part questionnaire was filled which included sociodemographic factors, clinical and therapeutic factors, dermatogic adverse events profile to determine type and severity using the common terminology criteria for adverse events (CTCAE), and finally a quality of life (QoL) questionnaire using the EORTC and Skindex 16 for general and specifc QoL respectively.
- Data analysis was done using SPSS version 26.
- Univariate analyses were done to evaluate which dermatologic adverse event (dAE) impacted QoL more and a multivariate analysis was done to determine predictors of QoL.
- Level of significance was set at < 0.05.

RESULTS AND DISCUSSION

- We had a total of 109 participants with the mean age of our study population was 48.6 ± 11.4 years
- Most of the study participants had a stage 4 cancer (47.7%).
- The study population was mostly on classic chemotherapy (78.9%), 11.9% on target treatment only, and 9.2% on both.
- Alkylating drugs were the most used 70/109 followed by antimetabolites (47/109), and taxanes (44/109) and the mean treatment duration was 4 [2 – 7] months.
- The prevalence of dAEs was 90.8% and the most common site affected was the skin (75.2%), followed by the hair (60.6%), nails (55%), and finally oral mucosa (45%).
- The most common dAE recorded was alopecia (66/109), followed by pigment changes of the nails and skin (59 and 54/109) respectively .
- We equally recorded 2 cases of severe adverse effects (Grade 4): 1 extravasation injury and 1 Stevens Johnson Syndrome.
- A total of 526 dAEs were recorded among the 109 participants. Details of the dAEs found, site affected, and grade according to CTCAE can be found in table 1.
- The study population had an overall QoL score median of 50 [33 – 83.3] and a global Skindex 16 score of 20 [2.0 – 56.5].
- The dAEs with the most impact on QoL were, hand-foot syndrome (p= 0.001) , pruritus (p=0.001), extravasation injuries (p=0.001) xerosis (p=0.001), hyperpigmentation (p=0.004), oral mucositis (p=0.03) , and paronychia p=0.02))
- Having altered ECOG score (p =0.005), skin as site of dAE (p =0.01), worse grade of oral mucositis (p=0.03) and pruritus (p=0.02) were predictive of poorer QoL (Table 2)

CONCLUSION

- Dermatologic adverse events can impact QoL especially hand-foot syndrome, pruritus, extravasation injuries, paronychia, and oral mucositis.
- Therefore, preventing these side effects or identifying them early will improve on QoL of patients and eventually improve on clinical outcomes
- Meanwhile the performance score, altered ECOG score, skin as site of adverse effect, worse gradeof oral mucositis and pruritus were prdictors of QoL. .

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