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Original Article

A Ten-Year Survey of Uterine Fibroids in a Tertiary Hospital in Niger-Delta Region of Nigeria

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ABSTRACT

Background: Uterine fibroid is a common gynaecological problem among women of reproductive age, and it commonly affects the quality of life of the affected women.
Objective: To determine the prevalence, clinical presentation and management outcome of uterine fibroid at the Delta State University Teaching Hospital, Oghara, Nigeria.
Methodology: This was a ten-year retrospective descriptive study of patients with uterine fibroids managed at Delta State University Teaching Hospital, Oghara from January 1, 2014 to December 31, 2023. Folders of patients who were managed for uterine fibroid were retrieved from the medical records of the hospital, and relevant information on socio-demographic parameters (such as age, parity, level of education), clinical presentations and mode of treatment was extracted and analyzed using SPSS version 26.
Results: The prevalence of uterine fibroid was 27.7%. The mean age was 36.3.2 ± 8.05years. The modal age group was 31 – 39 years. The commonest clinical presentation was infertility (78.4%). Majority of patients (97.4%) had open myomectomy.
Conclusion: Uterine fibroid is a common benign gynaecological tumour. The majority of patients presented with infertility. Myomectomy was the commonest mode of treatment because most of the patients were in reproductive age group and desirous of fertility. Future application of newer techniques may reduce the prevalence of open myomectomy.

Keywords: Leiomyoma, Menorrhagia, Myomectomy, DELSUTH, Nigeria.

INTRODUCTION

Uterine fibroid is a common gynaecological problem among women of reproductive age.[1] It is a common reason for gynaecological consultation in most Nigerian hospitals as well as the most common benign genital tract tumour in women of reproductive age.[1,2] It is a benign, monoclonal tumour of the smooth muscles cells of the myometrium, and composed of large amounts of extracellular matrix containing collagen, fibronectin, and proteoglycan.[3]
Uterine fibroid has been reported to affect 20-40% of women of reproductive age, particularly in their third and fourth decades.[4]

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In 2010, World Health Organization (WHO) reported that about 20-25% of reproductive women will have uterine fibroids.[5,6] The incidence in Nigeria varies among studies and ranges between 6.5%, to 13.5% of gynaecological admissions among the different geo-political zones.

Despite the fact that the cause is unknown, there is considerable evidence that estrogens and progesterone enhances tumour growth as the fibroids rarely appear before menarche and regress after menopause. [7,8] Risk factors for developing uterine fibroids include nulliparity, early age at menarche, familial predisposition, black race and overweight; high parity and tobacco smoking may protect from developing myomas.[2,5]

The clinical presentations of uterine fibroid are variable; more than 50% are asymptomatic, some patents may present with heavy menstrual bleeding, pelvic pain, and sub-fertility.[9] Other clinical features include abdominal swelling, pelvic pressure, urinary frequency, compressive bowel symptoms.[5,9] In this environment, most women with uterine fibroids present late to the hospital with large tumours size (uterus greater than 20-week size gestation), which is associated with increased morbidity and infertility.[6]

Myomectomy and hysterectomy are the commonest accepted surgical interventions for patients with symptomatic uterine fibroids worldwide. Hysterectomy is considered as the gold standard for treatment, however, in women of reproductive age of low parity and wish to maintain their menstrual and fertility functions and where there is an aversion to hysterectomy, myomectomy, via open or minimal access route becomes the preferred option, with varying degrees of complications. [1,10]

Despite the florid reports on uterine fibroids globally, there is paucity of reports on the subject matter from this institution, and the much available data is an epidemiological review conducted more than five years and scanty reports from the surrounding communities. Hence, this research work was conducted to determine the prevalence, clinical presentation and management outcome of uterine fibroids in DELSUTH over a ten-year period.

MATERIALS AND METHODS

This was a ten-year retrospective descriptive study carried out at the department of Obstetrics and Gynaecology of Delta State University Teaching Hospital (DELSUTH) Oghara, Delta State, Nigeria. The study was conducted over a ten year period, starting from January 1, 2014 to December 31, 2023.

Delta State University Teaching Hospital, Oghara provide specialist care to patients, and serve as major referral centre to Delta state and neighbouring towns in Edo, Rivers and Bayelsa States.

STUDY POPULATION

This consisted of all women who were seen and managed for uterine fibroid during the study period.

DATA COLLECTION

Permission to access hospital records and data for this study was obtained from the hospital management. Ethical approval for this study was obtained from the Institution Health Research and Ethics Committee. (REF:DELSUTH/HREC/2025/094/0905)

The case notes of all patients who were managed for uterine fibroid were identified from the record and gynaecological registers in the wards, theatre, and clinics. The required information was extracted from these case notes and registers using a data collection proforma designed for this purpose. The information included socio-demographic parameters (such as age, parity, level of education), clinical presentations, and mode of treatment. The data were collated, coded and analyzed with the aid of SPSS version 26 using simple descriptive statistics, and the results were presented in tables.

Prolonged post operative pain is regarded as pain occurring at least 6weeks duration following the surgical procedure when other causes of pain, such as malignancy or chronic infection have been excluded [11]

RESULTS

During the period under review, a total of 10,030 gynaecological cases were seen, 2780 of them were seen and managed for uterine fibroid alone. This gives prevalence of uterine fibroid 27.7% of all gynaecological cases. However, 2310 patients' case notes were found and retrieved from the hospital medical records department and this formed the basis for further analysis.

Table 1: Table showing socio-demographic and obstetrics characteristics

Table 1 showed the socio-demographic and obstetrics characteristics of the study participants. The mean age of the participants was 36.3 ± 8.05 years with a modal age group of 30-39 years old (52.4%). Majority of the participants were married (87.4%), about half had a tertiary level of education (48.9%) with many being involved in skilled businesses (44.2%) and most being nulliparous(60.2%).

Characteristics		Frequencies (n)	Percentages (%)
Age (years)	⩽19	20	0.9
	20-29	410	17.7
	30-39	1210	52.4
	40-49	460	19.9
	⩾50	210	9.9
Mead ± SD		36.3± 8.05	
Marital Status	Single	290	12.6
	Married	2020	87.4
Educational level	No formal education	320	13.9
	Primary	410	11.7
	Secondary	450	19.5
	Tertiary	1130	48.9
Occupation	Unemployed	310	13.4
	Unskilled labour	270	11.7
	Skilled labour	1020	44.2
	Business	710	30.7
Parity	Nullipara	1390	60.2
	Primipara	440	19.0
	Multipara	460	19.9
	Grand multipara	20	0.9

Table 2: Table Showing the clinical symptoms of the study participants

Clinical Symptoms **	Frequencies (n)	Percentages(%)
Infertility	1810	78.4
Menorrhagia	720	31.2
Lower abdominal pain	290	12.6
Lower abdominal swelling	190	8.2
Dysmenorrhoea	180	7.8
Recurrent abortions	80	3.5
Urinary Tract Symptoms	30	1.3

*** – Some participants had multiple symptoms*

Table 2 showed the various presenting clinical symptoms by the study participants. The commonest presenting symptom was infertility (78.4%); other symptoms included menorrhagia (31.2%), lower abdominal pain (12.6%) and recurrent abortions (3.5%).

Table 3: METHOD OF TREATMENT OF UTERINE FIBROIDS

Method of treatment	Frequency	Percentage (%)
Expectant	0	0
Medical	20	0.9
Myomectomy	2260	97.4
Hysterectomy (TAH and Subtotal)	40	1.7
Total	2310	100

TAH: Total abdominal hysterectomy.

Table 3 illustrated the various treatment modalities received by the study participants, as most patients had myomectomy (97.4%). Twenty (0.9%) and 40 (1.7%)of the participants had medical management and hysterectomy respectively

Table 4: Table showing the complications of the study participants.

Complications	Frequencies (n)	Percentages (%)
Prolonged post-Op pain	1540	66.7
Anaemia	50	2.2
Fever	260	11.3
Wound breakdown	370	16
Urinary Tract Infection	10	0.4
Need for Blood Transfusion	80	3.5

DISCUSSION

This study assessed the prevalence, clinical presentation, and management outcomes of patients with uterine fibroids. The prevalence of uterine fibroid in this study was 27.0%. This was similar 29.5% prevalence reported by Ekine et al in Okolobiri, Nigeria.[6] However, Zimmermann et al reported 4.5 – 9.4% in UK and 9.85 – 17.6% in Italy in their work conducted via an international internet-based online survey in different countries.[8] Our finding may be attributed to the fact that Delta State University Teaching Hospital is the major referral centre for hospitals within and outside Delta State.and is also located in same Niger-Delta region where Okolobiri is located. More so, black populace are more at risk of developing uterine fibroid than their white counterparts. The modal age group in this study was 21 – 29 years with a mean age of 28.68 ± 7.49. This was similar to report by Ross et al in UK and lower than 33.3±4.7 years reported bt Odunvbun in a neighboring

community.[12,13] Uterine fibroid is shown to be common in women of reproductive age group. This is attributed to the high levels of estrogen and progesterone elaborated by this age group, thus stimulated the monoclonal fibres of the uterus that eventually results in fibroid development. Nulliparity accounted for 50.0% of the study populations. This findings was similar to reports from different Geo-political zones of Nigeria; Madunatu et al, in Awka, Ibinaiye et al in Jos and Olutu et al in Port Harcourt with a higher number of nulliparous ladies at risk of uterine fibroid[1,4,14]; however, Ekine et al reported that multiparous women were more at risk.[6] Nulliparity is said to be a risk factor for uterine fibroid because most nulliparous women are within the reproductive age group where the hormones plays a significant role in its development

This study showed that the most common clinical presentation was infertility and this accounted for 78.4% of the study population. This finding was contrary to findings reported by Madunatu et al in Awka, Nigeria and Adawe et al in Uganda who reported abdominal swelling (59%) and pelvic pain (72.2%) respectively as the commonest symptoms. Our study reported higher incidence of infertility because most of the patients presented for fertility evaluation and during the course of evaluation, they were found to have uterine fibroids. Majority of the patients (97.4%) had abdominal myomectomy and was similar to 97.3% reported by Ekine et al in Okolobiri, Nigeria.[6] Open myomectomy was the most common surgical procedure done for women with uterine fibroid because majority of the patients were women of reproductive age who presented to clinicians for fertility evaluation and a uterine sparing surgery such as myomectomy was needed to preserve the uterus for future conception. The most common complication was prolonged post-operative pain and this amounted to 66.7%. This was contrary to anemia reported by Madunatu et al as the most common post operative complication.[1] Surgery thought beneficial, is not without complications as post operative pain was the major complain in our findings and this could be attributed to tissue trauma, inflammation and healing that occurs following tissue injury and also the sub-optimal dose of analgesic used following the surgery.

CONCLUSION

The uterine fibroid is the most common gynaecological condition seen in women of reproductive age group. Infertility was the leading cause of hospital consultations among the women and myomectomy was the commonest mode of treatment especially among pre-menopausal women due to their fertility needs

THE LIMITATION OF THE STUDY. It was difficulty in retrieving all the case files; however, the findings were still relevant.

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Original Article

Attitudes of dental students to communication skills learning in Obafemi Awolowo University, Ile-Ife, Osun state.

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ABSTRACT

Background: Effective communication is a key component of dentist-patient interaction and it is a fundamental skill that can improve the effectiveness of patient management. Communication skills training aims to develop communication not only with the patient but also with the family of the patients, colleagues and other health care professional. There is virtually no research identifying dental students' attitude towards communication skills learning in Nigeria.
Aim: The study aimed to investigate the attitude of dental student towards communication skill learning in Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria.
Methodology: A cross-sectional study conducted among 129 undergraduate students (Part 1 – 6) of the Faculty of Dentistry, Obafemi Awolowo University, Ile – Ife. A self-administered questionnaire of the communication skills attitude scale (CSAS) which comprise of both the positive attitude scale (PAS) and negative attitude scale (NAS) was used for the data collection from participants. The data collected was sorted and cleaned to remove any missing values. Inferential statistics analysis was done using IBM SPSS version 26.0.
Results: A total of 129 dental undergraduate students completed a structured questionnaire on communication skills learning; The communication skills attitude scale (CSAS). The mean score for the positive attitude scale (PAS) was 50.98±5.61 and for the negative attitude scale (NAS) was 37.64±6.56. There were no statistically significant differences based on age and study year in attitudes toward learning communication skills. However, the negative attitude scale showed a statistically significant difference between males and females (p-value=0.001).
Conclusion: The study concluded that dental students generally have a positive attitude towards communication skills learning.

Keywords: Leiomyoma, Menorrhagia, Myomectomy, DELSUTH, Nigeria.

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INTRODUCTION

Communication is the process of expression of knowledge and understanding from one person to another.[1] Communication cuts across all fields of practice including dental practice where it is understandably, a crucial component of dentist-patient interaction which entails a professional flow of information between the two parties. Effective communication between dentists and patients fosters strong relationships and enhances patient satisfaction.[2] Being a patient-centered approach, it allows for proper expression of concerns and empathy which are significant in gaining patients' trusts. With effective communications, patients are more likely to stick with their treatments and follow recommendations for behavior change[1] which helps also to determine -

whether the patient comprehends and accepts dental recommendations. Notably, there is evidence that patient-centered communication improves the kind of patient perception needed for faster relief from pain and better mental well-being.[3]

A good mastery of communication skills helps in carrying out good history, conducting thorough examinations, arriving at accurate diagnoses, generating detailed treatment plans and ensuring proper care.[4] Consequent to the relevance of this subject, some authorities have advocated the inclusion of communication skills learning and training in the undergraduate dental school training curricula which will enhance interactions with patients, coworkers and team members.[5] In 2008, the American Dental Education Association (ADEA) House of Delegates endorsed communication skills as a vital competency for newly graduated general dentists.[6] However, despite the well-documented advantages of strong communication and dental students' expressed desire to enhance these skills, formal communication skill training is still not mandatory in dental colleges.[7]

In order to better prepare dental students for their clinical practice, it is imperative to provide them with access to communication training focused on practical skills. This training will equip them to effectively address patient anxiety, recognize ethical dilemmas, and identify important psychological aspects that will enable more precise diagnoses and the delivery of more impactful treatments enhancing patient safety and overall satisfaction.

Despite a growing body of literature on the attitudes of dental students towards communication skills globally, there remains a significant research gap in understanding the specific attitudes of dental students in Nigeria. While various studies have explored this topic in various international contexts,[8, 9] there is a notable absence of comprehensive research that focuses on Nigerian dental students' perspectives on communication skills within the field of dentistry. Examining their attitudes and comparing them to existing global literature is crucial for tailoring communication skill training programs to meet the unique needs and cultural contexts of dental education in Nigeria.

Examining students' attitudes also, can identify areas for improvement in dental education, helping institutions tailor their curriculum to better prepare future dentists. Additionally, in the Nigerian context, cultural and linguistic diversity may present unique communication challenges. By investigating students' attitudes in this specific context, the research can contribute valuable insights that facilitate the development of culturally sensitive communication training programs, ultimately enhancing the quality of dental care and patient-provider relationships in Nigeria.

A study by Aina BA and Ogunbiyi OO on the assessment of communication skills in Lagos Nigeria was conducted among Pharmacy students but did not assess attitude of the students towards the arts of communication skills learning.[10]

Among dental students, there has been no previous study assessing their attitude towards communication skills learning in Nigeria. This research gap presents an opportunity to contribute valuable insights to the global body of knowledge on dental education and communication skills, ultimately improving dental curricula and healthcare practices in Nigeria and potentially beyond. Also, since communication skills play a crucial role in the dentist-patient interaction from the first consultation on, it is a subject that deserves consideration during dentists' undergraduate study.

Therefore, this cross-sectional study is aimed to investigate the attitude of dental students on communication skill learning

METHODOLOGY

The study was a cross-sectional descriptive survey conducted amongst the Part 1-6 students of the Faculty of Dentistry of Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria. Ethical approval for the study was obtained from the Health Research Ethics Committee of the Institute of Public Health, Obafemi Awolowo University, Ile-Ife, Osun State, with protocol number IPH/OAU/12/2049. The following variables were obtained; gender, age and CSAS scores.

SAMPLE AND SAMPLING TECHNIQUE: The purposive sampling technique was used to select the samples. All students who appeared on Dean's register during the study period from January 2023 to April 2023 including part 1-6 were eligible to participate. The questionnaires were sent through class representatives to respondents during classes and clinical hours depending on the class level of the respondents. A total of 158 students were selected from Part 1 to part 6 which was the total number of students in the faculty of dentistry according to the dean's record (part 1=48, part 2=24, part 3=4, part 4=35, part 5=19, part 6=28).

INCLUSION AND EXCLUSION CRITERIA

Participants included consenting part 1 to part 6 Dental students of the Obafemi Awolowo University, Ile-Ife while students from other faculties were excluded

RESEARCH INSTRUMENT

The instrument used was a modified validated questionnaire;..\Link.docx The Communication Skills Attitude Scale (CSAS).[11]

The first section of the questionnaire sought information about socio-demographic characteristics of participants.

These included questions on age, gender, class, ethnicity, and religion.

The CSAS consisted of 26 items framed within 2 subscales which were the Positive Attitude Scale (PAS) and Negative Attitude Scale (NAS). Each subscale contained 13 items. The PAS items (4,5,7,9,10,12,14,16,18,21,22,23,25) and NAS items (1,2,3,6,8,11,13,15,17,19,20,24,26) were scored using a 5-point Likert Scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).[11] The CSAS had undergone content and face validation, followed by psychometric analysis using principal component analysis to assess construct validity.[11] Internal consistency was evaluated using Cronbach alpha which demonstrated good internal consistency for the PAS (α = 0.873) and the NAS (α = 0.805). The test-retest reliability as measured by the intraclass correlation coefficient (ICC) was 0.646 ($p<0.001$) for the PAS and 0.771 ($p<0.001$) for the NAS.[11] The scores from the Positive Attitude Scale (PAS) were added for each respondent with a maximum possible score of 65(13 x 5). The same was done for the Negative Attitude Scale (NAS). The mean score for the PAS and NAS scores of all participants were calculated and a high PAS score represented a positive attitude towards communication skills learning while a high NAS score represented a negative attitude towards communication skills learning. Good attitude towards communication skills learning was defined by PAS of ≥52 (good positive attitude) and NAS ≤26 (low negative attitude); while Poor attitude towards communication skills learning was defined by a PAS of ≤39 (low PAS) and a NAS of ≥39 (high NAS)

ADMINISTRATION OF INSTRUMENT AND DATA COLLECTION

The copies of the self-administered questionnaire titled; The Communication Skills Attitude Scale (CSAS) were sent to the respondent by their class representatives. The filled copies were collected from the class representatives for further analysis.

METHOD OF DATA ANALYSIS

Before analysis, the data were entered into excel spreadsheet. The statistical analysis was carried out using IBM SPSS (version26.0). Descriptive analysis was conducted using a wide variety of measures of location (mean, median, mode) and dispersion (standard deviation) to describe the socio-demographic characteristics of respondents.

Inferential statistics using t-tests (for dichotomous variables) and one-way ANOVA (for non-dichotomous variables) were done to assess the relationship between Participants' gender, age, study level and attitudes of dental students to communication skills learning. A p-value of <0.05 will be considered statistically significant in all cases.

RESULTS

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Table 1. Socio-demographic characteristics of Respondents (n=129)

Characteristics		Frequency (n=129)	Percentage (%=100)
Age	15-20 years	28	21.7
	21- 29 years	99	76.7
	30 – 31 years	2	1.6
Gender	Male	69	53.5
	Female	60	46.5
Study Level	Part1	31	24.0
	Part 2	23	17.8
	Part 3	3	2.3
	Part 4	26	20.2
	Part 5	19	14.7
	Part 6	27	20.9
Religion	Christianity	110	85.3
	Islam	17	13.2
	Traditional	1	.8
	Others	1	.8
Ethnicity	Yoruba	114	88.4
	Igbo	8	6.2
	Hausa	0	0
	Others*	7	5.4

*** Delta, Edo, Calabar**

Table 1 shows the socio-demographic characteristics of the respondents. Majority of the respondents 99 (76.7%) were in the age range 21-29 years, 69 (53.5%) were male students and 60 (46.5%) were female, respondents in study levels Part 1, 31 (24.0%) and Part 6, 27 (20.9%) constituted the majority of the respondents. Majority of the respondents 110 (85.3%) were Christians. 114 (88.4%) were of Yoruba ethnicity.

ATTITUDE OF DENTAL STUDENTS TOWARDS COMMUNICATION SKILLS LEARNING.

Table 2: The attitude of dental students to communication skills learning.

	Mean scores (SD)
Positive attitude scale (PAS)	**50.98+/- (5.61)**
Negative attitude scale (NAS)	**37.64 (6.56)**

Table 2 shows the attitude of dental students to communication skills learning based on mean scores of the positive attitude scale (PAS) and the negative attitude scale (NAS). The mean score for the PAS is 50.98 ± 5.61 (Out of 65) and the mean score for the NAS is 37.64 ± 6.56. (Out of 65). This implies that most dental students have a positive attitude towards communication skills learning.

RELATIONSHIP BETWEEN STUDENTS' CHARACTERISTICS AND ATTITUDE TO COMMUNICATION SKILLS LEARNING.

Table 3: Comparing attitude to communication skill learning based on student's socio-demographic characteristics.

Characteristics		PAS	P Value	NAS	P Value
Gender	Male	51.70 ± 5.15	0.119	35.20 ± 6.19	0.000*
	Female	50.15 ± 6.03		40.43 ± 5.86	
Age	Below 20 years	49.54 ± 5.28	0.154	38.46 ± 4.76	0.752
	21 – 30 years	51.28 ± 5.67		37.41 ± 7.04	
	31 years and above	56.00 ± 0.00		37.00 ± 4.24	
Study Level	Pre-clinicals	50.82 ± 5.46	0.785	36.81 ± 6.37	0.203
	Clinicals	51.10 ± 5.75		38.29 ± 6.68	

Table 3 shows the relationship between students' characteristics and attitude to communication skills learning based on their mean PAS scores and NAS scores. The negative attitude scale showed a statistically significant difference between males and females (P-Value=0.000). There is an increase in the mean PAS scores with increasing age and a decrease in the mean NAS score with increasing age, although both scales were not statistically significant with a P-value of 0.154 and 0.752. Students in the clinical years (Part 4 to 6) had more positive attitude (52.10 ± 5.75) to communication skills learning compared to the students in the pre-clinical years (50.82 ± 5.46), while the pre-clinical students had less negative attitude (36.81 ± 6.37) to communication skills learning compared to the clinical students (38.29 ± 6.68), although both findings were also not statistically significant with p-values of 0.785 and 0.203 respectively.

Table 4. Relationship between Dental student and Attitude towards communication skills learning

		Students Attitude towards communication skills learning			P-value
		-ve	+ve		
Dental students categorized	Preclinical Level (1-3)	34	23	1	0.156
		50.7%	37.1%		
	Clinical Level (4-6)	33	39		
		49.3%	62.9%		
	Total	67 100%	62 100%		

Table 4 shows the relationship between dental students' attitude towards communication skills learning. Thirty-nine (62.9%) of the clinical students, that is part 4 to 6 dental students have positive attitude towards communication skills learning. The PAS score is not statistically significant (p-value = 0.156).

Descriptives

Gender

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
Negative Attitude	67	1.37	.487	.060	1.25	1.49	1
Positive Attitude	62	1.56	.500	.063	1.44	1.69	1
Total	129	1.47	.501	.044	1.38	1.55	1

ANOVA

Gender

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1.179	1	1.179	4.845	.030
Within Groups	30.914	127	.243		
Total	32.093	128			

As shown in the ANOVA table (Table 5), the value of F is 4.845, which reaches significance with a p-value of 0.030 (which is less than the 0.05 alpha level). This means there is a statistically significant difference

between the attitude of male and female dental students on communication skill learning.

DISCUSSION

Results from this study showed that dental students of Obafemi Awolowo University, Ile -Ife generally have a positive attitude towards communication skills learning, recognizing the importance of good communication skills in patient's assessment and overall management. This is similar to a study conducted by Hussein among 244 dental students which reported a more positive attitude towards communication skills learning based on their mean positive attitude scale and mean negative attitude scale scores.[12] It is also similar to Richa et al., in a 2016 study where they reported scores of 50.44 ± 5.83 and 29.72 ± 4.32 for the PAS and NAS respectively.[9] Additionally, Laurence observed that there was a favorable association between students' attitudes towards learning communication skills but a negative correlation with the actual acquisition of these skills.[7]

This current study showed that males had a more positive attitude towards communication skill learning compared to females which was evidenced by a higher mean PAS score, although this finding was not statistically significant. This is in accordance with the results of a study conducted among dental students in Cairo University in Egypt which found no statistically significant relationship between gender and positive attitudes towards learning communication skills.[12] However, this was in contrast to the earlier study conducted by Atteya et al. in 2017 where they found that female interns had higher PAS scores than male interns.[13] This contrast in finding was attributed to the possible reason that the art of communication comes naturally from females and therefore female students would be more likely to appreciate communication skills learning. Aina BA and Ogunbiyi OO also observed that female pharmacy students had better communication skills than their male counterparts.[10] Also in Cologne, Germany, interaction effects were found for the factors like gender and section of study: female students in the clinical section of their study who participated in the longitudinal curriculum reported higher positive attitudes and lower negative attitudes compared to female students in the preclinical section of study.[8]

For the negative attitude scale, females had more negative attitude towards communication skills learning which was statistically significant (P-Value=0.001). This finding may be due to a perception by the female dental students that since females are inherently good communicators so they likely do not view communication learning as a skill they need to acquire.[14, 15]

This study also showed that clinical students had more positive attitude compared to their pre-clinical counterparts, although this finding was not statistically significant (p-value=0.785). This finding is also in line with the study conducted by Iqbal *et al* among medical and dental students to evaluate their attitudes toward communication skills learning in early years of their medical education.[16] Similar study carried out among Dental students in undergraduate and postgraduate level in Bengaluru city, India, also reported similar findings in which senior students had high positive attitude toward communication skills than junior students.[9] The more positive attitude of the clinical students could be attributed to their exposure to patients during clinical rotations; the clinical students have more hands-on patient interactions than the pre-clinical students. This practical experience allows them to see the direct impact of effective communication on patient care. This may help them develop a better understanding of how communication skills can lead to improved treatment adherence, patient satisfaction, and successful outcomes. The clinical students also encounter a wider range of patient personalities, including challenging or difficult cases. These experiences can highlight the importance of advanced communication skills in managing complex patient interactions. Also, clinical students may be required to demonstrate competence in communication skills as part of their clinical competency assessments. Meeting these requirements can motivate students to develop a positive attitude towards communication skills.

It has been reported that exposure to both learning and practice have an impact on improving learning of communication skills.[8] This current study showed that the clinical students who had been exposed to more more interactions with patients had a more negative attitude towards communication skills learning compared to the pre-clinical students. This is similar to a study by Lichtenstein et al who discovered that Dental students who were exposed to communication skills learning curriculum had significantly lower negative attitudes towards learning communication skills than students who did not attend such courses.[8] However, The possible reason for this negative attitude among clinical students may include students' perception of communication skills training as an additional burden to an already increased workload and responsibilities during the clinical year. This heightened stress could lead to a more negative attitude towards any supplementary coursework, including communication skills training. They also may develop a more negative attitude due to this discrepancy between their expectations and the reality of patient interactions. Similarly, some other studies have reported that medical students tend to develop more negative

attitudes towards patient-centeredness and communication as they progress through medical school.[17, 18]

There was no significant contribution of age towards the attitude of communication learning skills whether positively or negatively.

CONCLUSION

Dental students generally have positive attitudes towards learning communication skills. While females have a more negative attitude towards communication learning skills, Clinical students have better attitude than preclinical students.

LIMITATIONS

1. The limitation to this research was that it was based on students' attitudes in one institution and might not be a true representation of the students' attitudes in Nigeria.
2. There is no prior exposure of students to communication skills learning courses which might have an impact on the outcome of the study.

RECOMMENDATIONS

1. Communication skills learning should be made more interesting to encourage both female and clinical dental students' participation.
2. Further studies should be conducted in other dental schools in Nigeria that would facilitate a better understanding of the general attitudes of dental students to communication skills learning in Nigeria.

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Review Article

Maintaining Infection Control Standards: Challenges in a Resource-Constrained Environment- A narrative review

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ABSTRACT

Standard Infection Control Protocols (SICPs) are the foundations of safe healthcare delivery for both the patient and the healthcare worker. It houses the key to the prevention of cross-infection in such environments. These protocols are generally designated "Universal Standard Precautions," known to be strictly adhered to in high-income countries (HICs). However, their implementation in resource-constrained environments (RCEs) reveals a profound chasm between policy and practice. This narrative review synthesizes evidence to explore the multifaceted challenges that undermine SICP adherence in low- and middle-income countries (LMICs) and under-resourced settings within high-income nations. A close review and analysis of the challenges confronting the practice of SICPs in RCE settings reveals the root cause to be; a failure of the system. This is expressed as chronic infrastructural instability, fractured supply chains, an unsupported health workforce, and pervasive socio-cultural and economic barriers. This review, therefore, unveils the challenges bedeviling compliance and the possible route of repair that can create a positive paradigm shift in favour of compliance with SICPs.

Keywords: Standard Infection Control(SICP), Resource Constrained Environment (RCE), Healthcare Workers(HCW).

INTRODUCTION

Standard Infection Control Protocols (SICP) in healthcare settings are a key fundamental principle for success in preventing healthcare-associated infections and mitigating the spread of antimicrobial resistance1. It is the insurance for both patients and healthcare workers' safety in the course of interaction. SICP encompasses hand hygiene, the use of personal protective equipment (PPE), safe waste management, environmental cleaning, and aseptic techniques. These are universally endorsed by bodies like the World Health Organization (WHO)[2] as non-negotiable practices for safe care. Theoretically, these protocols are simple, low-cost, and highly effective, yet, in practice, their consistent application remains an acute fundamental challenge in resource-constrained environments (RCEs).

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The term "resource-constrained" extends beyond low-income nations; it encompasses under-resourced public hospitals in middle-income countries, rural clinics in high-income nations, and facilities overwhelmed by humanitarian crises. In these settings, the burden of healthcare-associated infections (HAIs) is disproportionately high, with prevalence rates 3 to 20 times greater than in high-income countries (HICs)3 This disparity is not incidental; it is a direct consequence of the failure of leadership in these societies to create a functional system or environment where SICPs are practicable and sustainable. The confluence of suboptimal infrastructure, inadequate access to water, sanitation, and hygiene, and insufficient numbers of trained personnel further exacerbates these challenges1,4.

The Challenges of SIPC

Absence of Basic Infrastructure: The major barrier to the practice of standard infection control protocols in RCEs is the absence of non- negotiable amenities such as clean running water, reliable electricity, and adequate spatial design.

Water Sanitation and Hand Hygiene

Hand hygiene is the single most critical measure for effective practice of the Infection Control Protocol (IPC), yet it becomes impossible to sufficiently observe it without access to safe water. A WHO/UNICEF report estimated that one in four healthcare facilities globally lacks a basic water service, affecting over 1.8 billion people5. In such facilities, healthcare workers (HCWs) may resort to using alcohol-based hand rub (ABHR) exclusively. While ABHR is effective, it cannot replace soap and water when hands are visibly soiled, and its supply chain is itself vulnerable. Furthermore, inadequate sanitation—including a lack of functioning toilets and sewage systems—creates a perpetual source of environmental contamination that no amount of bedside hygiene can fully mitigate. Yowin et al.6 reported that a high prevalence of E.histolytica infection among patients screened, in a general hospital setting in south-south Nigeria, in their four-year retrospective review. Children were reported to be more affected, particularly during the dry seasons. The absence of portable water, which results in poor hand hygiene habits, was highlighted as one of the predisposing factors for the spread of the causative organism.

Epileptic Electricity and Poor Spacing/Ventilation of Health Buildings

Reliable electricity is essential for sterilizing equipment, operating ventilation systems (particularly negative-pressure rooms for airborne pathogens), and maintaining the cold chain for vaccines and reagents7. Frequent power outages in RCEs render autoclaves and refrigerators unreliable, forcing facilities to resort to unsafe re-sterilization practices or the use of single-use items in a manner they were not designed for8,9.

Simultaneously, overcrowding negates the most fundamental IPC principles10. Overburdened facilities in RCEs often operate at double or triple their intended capacity11. The lack of isolation rooms means patients with drug-resistant tuberculosis, viral hemorrhagic fevers, or other highly contagious conditions are nursed in open wards, lying on mats between beds3,12. In such an environment, the distinction between a "clean" and "contaminated" zone—a prerequisite for aseptic technique and PPE use—becomes functionally meaningless.

Inconsistency in the Supply Chain of Medical Essentials and Consumables.

Even when infrastructure exists, maintaining a consistent supply of IPC consumables is a persistent challenge. RCEs are often at the mercy of complex, underfunded procurement systems, donor-driven supply cycles, and geopolitical instability.

The COVID-19 pandemic starkly illustrated this vulnerability. Global supply chains collapsed, and RCEs faced acute shortages of masks, gowns, and gloves13,14. During the pandemic, healthcare workers were compelled to reuse single-use Personal Protective Equipment (PPEs), such as N95 masks for days or weeks, or unreliable alternatives. It is sad to note the absence or inconsistent supply of essentials such as basic cleaning agents like chlorine or hospital-grade disinfectants. This results in a cycle where the environment itself becomes a persistent reservoir for pathogens with high rates of antimicrobial resistance15.

The Growing Monster of Manpower Shortage in RCEs

The practice of observing infection control standards in carrying out tasks in healthcare settings is in itself cognitively demanding and monotonous in nature. This becomes a burden for the HCW, who is already saddled with a lot of responsibilities due to acute manpower shortage, particularly in the face of the global migration crisis of the day. The WHO estimates a projected shortfall of 10 million health workers in Low and Middle Income Countries (LMICs) by 203016. This chronic understaffing translates into unsustainable patient-to-nurse ratios. A nurse who is already overburdened in the face of an acute shortage of basic IC materials will be forced to observe the standard more strictly in life-threatening cases while accommodating some compromise in routine healthcare treatments in terms of material utilization.

Furthermore, High Income Countries(HICs) are known to have dedicated IPC staff, whereas, in LMICs, the job of IPC monitoring is an add-on to the already

overburdened HCW who very likely has no formal training on the job. The likely consequence of the absence of dedicated leadership and continuous education in IPC is the gradual decay of previous knowledge and ritualistic practice of sub-surface IPC rather than evidence-based SIPC protocols.

The Painful Bite of Socio-Cultural and Economic Realities

One of the harsh realities of the socio-economic crunch on service delivery in REs is the inevitable need for involvement of family members in the delivery of care, particularly in-patients. Due to understaffing, family members provide bedside care, including feeding, bathing, and even administering medications. They, in most cases, lack knowledge of IPC and have rarely received formal training on hand hygiene or effective use of PPE; consequently, bypassing the SICP framework. This invariably places them at risk of cross-infection in a healthcare environment17,18.

Another harsh reality of the involvement of family members in providing care for patients in RCEs is the burden of purchasing basic consumables and their own supplies, such as gloves, syringes, and disinfectants, from local pharmacies. Consequently, families that cannot afford to buy a new sterile glove for each dressing change may reuse or go without. Thus, placing an regressive economic burden on the poor and maintains a system where those with the least resources receive the lowest safety standards.

Furthermore, cultural and traditional practices may influence perceptions of hygiene and disease transmission. This may result in resistance from family members in incorporating IPC protocols and may require an informal education of the family members about the importance of standard care practices in order to overcome such barriers.

The Vicious Cycle of Failed Governance and the Consequences of Neglect

A close assessment of the origins and persistence of a weak, capricious government's poor adherence to SIPC protocols in RCEs reveals a vicious cycle: government failure to prioritize basic healthcare preventive measures leads to detrimental outcomes. In most RCEs, governmental focus tends toward expensive curative facilities rather than preventive care, resulting in chronic underfunding of preventive infrastructure.

This neglect creates a vicious cycle; Poor IPC leads to high rates of hospital-associated infections (HAIs), which in turn drives the emergence and spread of antimicrobial resistance (AMR). The combination of unregulated antibiotic use, poor hygiene, and overcrowding, along with AMR, is an ideal condition for the selection and transmission of multidrug-resistant organisms (MDROs)19. Treating these infections requires expensive, last-line antibiotics that are often unavailable or unaffordable. This, in turn, leads to prolonged hospital stays, humongous health expenses for families, and high mortality. The economic cost of managing HAIs and AMR could have been prevented by basic IPC. This economic cost further drains the fragile health system, leaving even less for the foundational infrastructure needed to break the cycle.

Towards a Paradigm Shift: Rethinking Solutions

Reviewing the literature supports the view that HCWs are willing to be 100% compliant with IPC protocols, but requires adequate and consistent evidence, supply of basic IPC materials20. Many recent studies repeatedly suggest that the traditional approach to improving IPC in RCEs, such as periodic training workshops and punitive audits of HCWs, is insufficient to change the tide. A more holistic approach is definitely required. This holistic approach involves building a resilient IPC system, spanning from a positive improvement in budgetary allocation for preventive health, and an unbroken chain of supplies of basic IPC materials, to a well-structured system of improving manpower needs in healthcare facilities in the society21-23.

This means prioritizing capital investments in solar-powered water systems, on-site waste treatment, and robust energy grids as core health infrastructure, not ancillary projects.

Secondly, the focus of supply of these basic IPC materials should preferably be locally sourced, rather than investing in fragile international just-in-time logistics. Decentralizing the production of these items can buffer against global shocks.

Thirdly, the place of an IPC workforce, both as a committee and as individualized employment and training, must be prioritized by the government and the health authorities. These persons should be empowered to enforce compliance with regulations and to ensure adequacy of IPC materials. Training in IPC competencies should be included in the curricula of undergraduate students in all Health-related institutions.

Conclusion

Maintaining standard infection control protocols in resource-constrained environments is beyond enforcing behavioural change or increasing knowledge and awareness of the same

It is a journey that must begin with the leadership at the top of society—policymakers, enforcers, and every arm of government—fostering understanding and commitment that influence outcomes in the management of health institutions. Training and reorientation of IPC practitioners are important, but

they represent only one, and often the easiest, path to positive change in IPC compliance. To attain this goal, all arms of government must be engaged.

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Review Article

Prioritizing Routine Dental Visits in Developing Nations: Addressing the Silent Epidemic

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ABSTRACT

In developing countries, the burden of oral disease remains a silent epidemic, yet not considered very important in comparison to other systemic health-associated challenges. While significant strides are being achieved in curbing major communicable diseases, some non-communicable diseases are not gaining the same ground, particularly oral diseases such as Dental caries and Periodontal diseases. The review, therefore, aims to highlight the significant role of" Routine Dental Visits" in mitigating against a rise in the global burden and the key factors responsible for its non-utilization generally. It identifies factors such as; poor perception and ignorance of the importance of oral health in relation to overall health, of both the individuals and the government, cultural barriers, affordability of oral health services, a generalized poor health seeking behavior, non\insufficient- health insurance coverage for oral diseases and the curative health model approach of the government system of care, as responsible. The consequence of this neglect was further analysed to be a worsening of clinical presentations, requiring a much higher level of funding than would have been needed for preventive oral healthcare. This subsequently translates to a higher financial burden on oral healthcare for both the individual and the government at large. Changing the status quo would require a change in the curative model approach to oral health to a preventive model of oral healthcare. This would include prioritizing routine oral\dental visits, as a core component of primary healthcare, leveraging on community-based strategies and the integration of oral healthcare into existing health platforms.

Keywords: Oral healthcare, Routine dental visits, Oral diseases, Global burden

INTRODUCTION

The global burden of oral diseases is a growing concern that requires timely intervention. The challenge has been reported to be more in developing countries due to major factors such as poverty[1]. Current global statistics of oral disease burden reveal a significant proportion of the population being affected by oral diseases in different forms. The most recent WHO Global Oral Health Status Report (GOHSR) in 2021 highlighted major areas of challenges confronting the actualization of the Universal Health Coverage (UHC) goal set for 2030 by the World Health Organisation (WHO)[1]. At the top of the list was that about 50% of the world's population was affected with one form of oral disease -

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- or another, approximately 3.5 billion persons. This figure is reported to be higher than the sum of the next 5 most prevalent non-communicable diseases[1,2]. Most prevalent on the list of oral infections was Dental caries, followed by periodontal disease, edentulism, and Oral cancer. The report further analyzed the key causes of the decline in oral health status of most regions of the globe. These included poor financing in developing countries due to their low GDP (Gross Domestic Product); global shortage of oral health professionals; inequality of wealth distribution in developing nations, resulting in unequal access to oral health care, and poor prioritization of oral health-related policies and projects by policymakers and government functionaries, expressed by very low budgetary allocations by the same[1].

The report on the Global Burden of Disease as at 2017[2], stated that the prevalence of untreated dental caries in permanent teeth was the most common health challenge globally (GBD 2017)[2]. While often regarded as a minor health concern, Dental caries and its sequelae can result in profound consequences, including chronic pain, systemic health complications, reduced productivity, and significant financial hardship. The burden of oral disease is undoubtedly greater in developing nations, as repeatedly reported by global health reports[3,4]. Reasons emphasized include a confluence of factors such as rapid urbanization, increased sugar consumption, illiteracy, inadequate oral healthcare professionals, and limited healthcare infrastructure. These have created a perfect storm for oral health decline.

Whereas the cost of curative oral healthcare burden is immensely weighty, the preventive strategies have been reported to be far lighter. Hence the need for intentional focus on preventive health practices, such as routine annual oral health checks.

This article, therefore, aims to address the obvious critical need for a radical focus by the government and stakeholders of developing nations to improve "Routine Annual Oral Health checks" as an effective measure to curb the oral health challenge.

The Attitude: Perceptions and Priorities

In most developing countries, dental care is predominantly perceived as a reactive measure, rather than as a proactive health maintenance activity. Dental visits are typically sought as a final resort, particularly when associated with intractable pain. This perception seems to be rooted in a historical and cultural belief system that views dental issues as either minor, non-life-threatening, and separate from "real" systemic health concerns[5,6]. As a result, routine check-ups, professional cleanings, and early interventions for asymptomatic conditions are unfamiliar concepts to the majority of the population[5,6]. The fear of cross-infection during dental procedures, particularly with blood-borne infections, is another belief that negates the interest in routine dental visits. There are also concerns about the possibility of contamination of the dental water supply used routinely during procedures, which could result in amoebic infections[7]. This belief is, however, not supported by some studies that have reported a good level of compliance with standard infection control protocols among dental healthcare professionals during procedures[8].

The challenge is further compounded by oral health literacy gaps. Research across sub-Saharan Africa and South Asia indicates that a significant portion of the population cannot identify the early signs of dental caries, gum disease, or the causal link between oral hygiene status and systemic conditions, such as diabetes or adverse pregnancy outcomes. Having biannual routine examinations is considered superfluous and expensive rather than a necessity. The consequence of this belief amounts to cases almost always presenting late for treatment and incurring more financial burden than necessary[9].

The Systemic Reinforcement of a Curative-Only Model

The challenge is worsened by the poor response of the government to health challenges in society. This is clearly demonstrated by the poor annual budgetary health-related allocation at all levels[10,11].

The lack of adequate funding in government-run health insurance programs attests to the discouraging disposition of the leadership of many of these countries. In the absence of insurance or public coverage for preventive care, high out-of-pocket costs for dental services make routine visits unaffordable for a large segment of the population[10]. This has created a situation where most government-owned health facilities serve more like pain clinics rather than a comprehensive oral health centre for a holistic approach to oral health care. Inadequate manpower supply in the centres further overburdens the system of care. Thus, setting the stage for further discouragement of the citizens in seeking oral healthcare promptly[10,11].

The Consequences of Neglect: A Cascade of Morbidity and Cost

The consequences of poor oral health-seeking behaviour of individuals and the lack of support of the government to oral health care are dire and unfavourable at all levels of impact. A simple dental carious lesion that presents late could lead to an irreversible pulpitis, which would require a root canal filling. The cost of a root canal filling could be

equivalent to a monthly wage in a low-income household, which alone is enough for the quick choice of a dental extraction for such an individual. Untreated dental caries could present as a dentoalveolar abscess that could lead to tooth loss, particularly where the patient lacks the financial capacity to access an endodontic procedure to save the tooth. Untreated dental caries in children affects school performance, nutrition, and self-esteem; however, it remains largely unaddressed because of a lack of school-based preventive programs or routine paediatric dental check-ups[12,13]. The presentations, possibilities, and consequences of poor oral health-seeking behaviours are extensive and unpleasant, resulting in losses both physically, psychologically, and financially. Early prevention is key to oral health success in any society. Embedding routine dental visits into the healthcare system and investing in preventive services is crucial to redirecting the wheel towards better oral health care in developing countries.

A Path Forward: Re-awakening Awareness and Access
Chatting the course for improved oral health care in order to arrive at universal health for all by the year 2030 requires strategic planning and implementation.

First will be the **integration of Oral health into healthcare planning, training, and delivery**. Oral health must be integrated into primary healthcare. Training non-dental professionals, such as community health workers, nurses, and primary care physicians, to conduct basic oral examinations, provide anticipatory guidance, and make referrals for routine visits can demystify dental care. This approach will help in positioning oral health within the familiar context of general health, normalizing the concept of regular check-ups[14].

Furthermore, utilizing **community-based outreach** alongside clinical services will help to increase preventive measures at the grassroots of society. School-based fluoride varnish programs, community screening events, and mobile dental units can be utilized during such programs: Early routine preventive services in a non-emergent state help in reshaping perceptions of dental care[15].

Finally, **advocacy for policy change** is non-negotiable. Studies revealing the local evidence on the cost-effectiveness of preventive care and the economic burden of neglecting it should be fostered and supported. These data will be essential for advocating for routine dental visits to be included in UHC packages. Providing one or two preventive visits per year within the national insurance-covered benefits would signal a policy-level acknowledgment of their importance, driving both demand and utilization[16].

Conclusion:
The high burden of oral disease in developing countries is not a reflection of an inevitable pathology; it is a reflection of systemic neglect and a demonstration of the impact of failure of awareness. Until routine dental visits are recognized not as a luxury but as a fundamental component of primary healthcare by individuals, communities, and policymakers, the cycle of preventable pain and financial depreciation of scarce resources will continue. To redirect the rhythm, there must be a health system reform in favour of preventive health by the government and a preventive health-seeking culture among individuals.

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Case Report

Clinicopathologic Discordance in Atypical Unilateral Dorsolateral Lichen Simplex Chronicus Mimicking Kaposi Sarcoma: A Diagnostic Challenge

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ABSTRACT

Background: Lichen simplex chronicus (LSC) is a chronic inflammatory dermatosis arising from repetitive mechanical trauma that sustains an itch-scratch cycle and leads to epidermal hyperplasia and dermal fibrosis. Although frequently encountered in dermatologic practice, dorsolateral involvement is rare and may assume exaggerated morphologic features that simulate infectious or malignant processes.
Objective: To report an unusual case of unilateral dorsolateral LSC clinically mimicking Kaposi sarcoma and to emphasize the indispensable role of clinicopathologic correlation in atypical acral dermatoses.
Methods: Comprehensive clinical evaluation with histopathologic examination and repeat biopsy confirmation.
Results: Histopathology demonstrated irregular acanthosis, compact orthokeratotic hyperkeratosis, hypergranulosis, pseudoepitheliomatous hyperplasia, papillary dermal fibrosis with vertically oriented collagen bundles, and dense lymphocytic infiltrates. These findings confirmed LSC. Due to persistent clinical concern for neoplasia, repeat biopsy was performed and reconfirmed the diagnosis. Combination corticosteroid-based therapy led to marked clinical improvement.
Conclusion: This case underscores how atypical anatomic presentations of otherwise common inflammatory dermatoses can create substantial diagnostic ambiguity and clinical uncertainty. When lesions arise in unusual locations or exhibit overlapping morphologic features, reliance on clinical impression alone may be misleading. In such scenarios, histopathologic evaluation serves as the definitive diagnostic anchor. Moreover, when clinicopathologic discordance persists, repeat biopsy and careful correlation between clinical findings and microscopic features are essential to establishing an accurate diagnosis.

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Keywords: Lichen simplex chronicus; dorsolateral dermatoses; Kaposi sarcoma mimic; clinicopathologic correlation; pseudoepitheliomatous hyperplasia.

INTRODUCTION

Lichen simplex chronicus (LSC), also termed localized neurodermatitis, represents the morphologic consequence of chronic mechanical injury to the skin mediated through a self-perpetuating itch scratch cycle.[1,2] Persistent rubbing induces epidermal hyperplasia, hyperkeratosis, hypergranulosis, and progressive papillary dermal fibrosis.[3]

LSC most commonly affects readily accessible sites including the posterior neck, scalp, extensor extremities, and anogenital region.[1] Acral involvement, particularly of the dorsolateral surfaces, is uncommon and diagnostically challenging. The unique biomechanical properties of dorsolateral skin predispose to marked hyperkeratosis and pseudoepitheliomatous hyperplasia under chronic frictional stress, potentially mimicking verrucous infection, hypertrophic inflammatory dermatoses, or squamous neoplasia.[3,4]

Chronic unilateral dorsolateral plaques and nodules accompanied by edema further broaden the differential diagnosis to include vascular neoplasms such as Kaposi sarcoma, especially in regions where HIV-associated malignancies remain clinically relevant.[5,6]

Clinicopathologic discordance is well documented in dermatology. Contemporary studies continue to demonstrate that histopathologic examination refines or alters initial clinical impressions in a significant proportion of cases, reinforcing the need for tissue confirmation in ambiguous presentations.[7–9] In sub-Saharan African practice, histologic evaluation has been shown to substantially improve diagnostic precision and patient management.[9]

We report a case of unilateral dorsolateral LSC with excoiration, ulceration and pedal edema clinically suggestive of Kaposi sarcoma, underscoring the diagnostic value of repeated clinicopathologic correlation.

Case Presentation

A 36-year-old man presented with a six-year history of a persistent pruritic rash confined to the right lower limb. The condition began as intensely pruritic hyperpigmented patches on the dorsum of the right foot and gradually progressed to thickened plaques and nodular lesions. Pruritus was severe, persistent, and markedly exacerbated by friction and prolonged standing, resulting in habitual scratching and rubbing.

Over time, the lesions increased in both size and number with proximal extension to involve the ankle and distal leg. The patient reported intermittent episodes of unilateral limb swelling associated with the cutaneous lesions. Four days prior to presentation, he developed acute pain over some of the nodular lesions without antecedent trauma, systemic symptoms, or constitutional complaints.

The distribution and chronicity of the lesions were confined to the right lower limb without involvement of other body sites or mucosal surfaces. There was no history of immunosuppression, significant weight loss, fever, or systemic illness. He denied high-risk sexual behavior and had no prior history of malignancy.

On examination, there were multiple clustered violaceous-to-hyperpigmented nodules and plaques over the dorsum and lateral aspect of the right foot, some dome-shaped and smooth surfaced, others with surface excoriation and post-inflammatory hyperpigmentation. The background skin showed marked lichenification with accentuated skin markings. The lesions were confined to the right lower limb.

The clinical impression at presentation favored Kaposi sarcoma due to the violaceous nodularity and unilateral distribution in the setting of limb swelling; however, histopathologic evaluation subsequently demonstrated features consistent with lichen simplex chronicus.

Investigations

Serologic screening for HIV, hepatitis B, and hepatitis C were negative.

Punch biopsy was obtained from a representative hyperkeratotic plaque.

Histopathology:

Microscopic evaluation revealed: Irregular acanthosis with elongation of rete ridges

Compact orthokeratotic hyperkeratosis with focal parakeratosis

Prominent hypergranulosis

Pseudoepitheliomatous hyperplasia

Papillary dermal fibrosis with vertically oriented collagen bundles

Dense superficial and deep perivascular lymphocytic infiltrates

Periodic acid-Schiff staining was negative for fungal organisms.

These findings were diagnostic of LSC.[2,3]

Because of ongoing clinical concern for verrucous or vascular neoplasia, repeat biopsy was performed from a separate lesion. Histologic findings were identical, definitively excluding Kaposi sarcoma and confirming LSC.

Differential Diagnosis

Kaposi sarcoma

Chronic hyperkeratotic tinea pedis

Verruca vulgaris

Hypertrophic lichen planus

Lichen simplex chronicus

Management

Systemic antibiotics were instituted for secondary infection.

Definitive therapy included systemic corticosteroid taper, intramuscular triamcinolone, high-potency topical corticosteroids, keratolytic agents, Antioxidants and oral antihistamines.

Footwear modification and friction avoidance were strongly emphasized.

Outcome

Progressive reduction of nodules. Thickness and scaling was observed. Excorition and ulceration resolved and pedal edema subsided. Residual hyperkeratosis improved with maintenance therapy.

Figure 1: There is diffuse, non-pitting lymphedematous enlargement with overlying hyperpigmented, violaceous to brown plaques and nodular lesions distributed predominantly over the dorsolateral surface and extending to the toes. The lesions are variably sized, ill-defined to well-circumscribed, with areas of lichenification, surface hyperkeratosis, and focal excoriation. The background skin appears thickened with accentuated skin markings.

The violaceous hue and nodular morphology in the setting of chronic unilateral lymphedema initially raised clinical suspicion for Kaposi sarcoma; however, subsequent clinicopathologic correlation established a diagnosis of atypical lichen simplex chronicus.

Figure 2: There are irregular, well-demarcated hyperpigmented plaques along the dorsolateral aspect of the foot, with areas of superficial erosion and ulceration covered by yellowish serocrust and fibrinous exudate. The surrounding skin demonstrates marked lichenification with accentuated skin markings and post-inflammatory hyperpigmentation, consistent with chronic mechanical trauma. Linear areas of denuded epidermis with underlying pink granulation tissue are evident along the lateral dorsum.

Figure 3: A solitary, elongated ulcerative lesion located over the dorsolateral foot extending toward the lateral malleolus. The ulcer is linear to ovoid in configuration, with well-defined but irregular margins and a predominantly erythematous to pink granulating base. The surface appears moist, with areas of superficial sloughing. Surrounding skin shows hyperpigmentation and mild induration.

Inferior and posterior to the primary lesion, over the lateral malleolar region, there is an additional smaller, round to oval ulcer with a yellowish fibrinous slough covered base and hyperpigmented margins. The adjacent skin appears dry with accentuated skin markings and minimal scaling.

Discussion

Lichen simplex chronicus (LSC) is more appropriately conceptualized as a localized cutaneous remodeling process rather than a primary disease entity. Sustained mechanical trauma promotes keratinocyte hyperproliferation and progressive dermal fibrosis, reinforcing pruritus and perpetuating the self-sustaining itch-scratch cycle.[1,2] Chronic epidermal stimulation induces acanthosis, hyperkeratosis, hypergranulosis, and papillary dermal fibrosis, culminating in the characteristic lichenified plaque. Although frequently encountered in routine dermatologic practice, its clinical morphology is highly site dependent and may deviate substantially from classical descriptions when arising in acral or mechanically stressed regions.

The dorsolateral aspect of the foot possesses distinctive structural and biomechanical characteristics. Although not uniformly a primary weight bearing surface, this region is subjected to repetitive friction, shear forces, and footwear related pressure. Chronic mechanical stimulation in this area may amplify hyperkeratotic responses and provoke pseudoepitheliomatous

hyperplasia, thereby simulating verrucous carcinoma, deep fungal infection, or hypertrophic inflammatory dermatoses.[3,4] In the present case, the nodular morphology, violaceous to brown pigmentation, and unilateral lymphedematous enlargement broadened the differential diagnosis to include Kaposi sarcoma.

Kaposi sarcoma is characterized histologically by spindle cell proliferation forming slit-like vascular channels accompanied by extravasated erythrocytes.[5,6] The absence of these defining features on repeated histopathologic examination was diagnostically decisive. Instead, the presence of marked acanthosis, compact hyperkeratosis, hypergranulosis, and vertically oriented collagen bundles within the papillary dermis supported chronic mechanical injury consistent with.[2,3]

Clinicopathologic discordance remains a recognized phenomenon in dermatology. Contemporary analyses report that histopathology refines or modifies clinical diagnoses in approximately 20–35% of inflammatory dermatoses.[7,8] This finding reinforces the limitations of morphology alone, particularly in acral sites where reactive changes may be exaggerated and misleading.

In sub-Saharan African practice, Obahiagbon and Omatighene demonstrated that histopathologic evaluation significantly altered provisional dermatologic diagnoses in a tertiary setting, emphasizing the value of biopsy in regions where overlapping clinical entities are prevalent.[9] The present case further substantiates this principle. The initial clinical suspicion of Kaposi sarcoma was reasonable given the unilateral swelling and nodular plaques; however, tissue diagnosis appropriately redirected management toward anti-inflammatory therapy rather than oncologic intervention.

The decision to perform a repeat biopsy reflects diagnostic vigilance rather than uncertainty. Iterative reassessment is a hallmark of high-quality dermatologic care, particularly when clinical morphology appears disproportionate to the initial histologic findings.

Mechanical triggers are central to LSC pathogenesis. Tight or occlusive footwear likely contributed to sustained frictional trauma at the dorsolateral aspect of the foot in this patient, perpetuating epidermal hyperplasia and dermal remodeling. Recent reviews underscore that successful management of LSC requires both pharmacologic suppression of inflammation and interruption of mechanical perpetuating factors.[1,10]

This case highlights three critical clinical lessons:

- Acral inflammatory dermatoses may assume exaggerated morphology that mimics malignancy.
- Histopathologic confirmation is indispensable in unilateral chronic plaques involving the dorsolateral aspect of the foot with atypical features.
- Repeat biopsy is justified when clinicopathologic discordance persists.

Ultimately, this report reinforces the foundational dermatologic principle that accurate diagnosis rests upon the integration of morphology, histology, and clinical evolution.

Conclusion

This case underscores the protean clinical spectrum of Lichen simplex chronicus and its capacity to masquerade as malignant or infectious pathology when occurring in anatomically and biomechanically distinctive sites such as the dorsolateral aspect of the foot. The striking unilateral involvement, violaceous nodularity, excoriation and lymphedematous enlargement reasonably raised suspicion for Kaposi sarcoma, illustrating how morphology alone may be misleading in acral dermatoses.

Definitive diagnosis was achieved through rigorous clinicopathologic correlation and repeat histologic confirmation when clinical concern persisted. This iterative diagnostic approach exemplifies sound dermatologic stewardship and reinforces the principle that tissue examination remains indispensable when clinical and morphologic features diverge.

Beyond its individual presentation, this report highlights a broader clinical lesson: common inflammatory dermatoses may assume exaggerated or atypical forms under chronic mechanical stress. Early biopsy, thoughtful reassessment, and disciplined integration of histopathology with clinical evolution are essential to avoid misdiagnosis, prevent unnecessary oncologic intervention, and ensure targeted therapy.
Ultimately, this case reaffirms that diagnostic precision in dermatology arises not from morphology alone, but from disciplined correlation between the clinic and the microscope.

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Case Report

Morbidly Adherent Placenta in an Unscarred Nigerian Uterus: A Case Report and Review of Literature.

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ABSTRACT

Morbidly adherent placenta (MAP) is a rare but potentially life-threatening complication of pregnancy that can results in massive obstetrics hemorrhage and often leads to hysterectomy. It is associated with maternal and fetal morbidity and mortality. One-third to one-half of all emergency postpartum hysterectomies are performed as a result of adhesive placental disorders.

The prognosis of MAP can be improved with prenatal diagnosis, which has been shown to reduce morbidity by 50% however, only half of MAP cases are diagnosed prenatally. Management could be conservative or surgical. We report a case of morbidly adherent placenta in a 24 years old G1P0+0 Nigerian nulliparous lady that was diagnosed intra-operatively.

Keywords:

INTRODUCTION

Morbidly adherent placenta (MAP) is a rare but potentially life-threatening complication of pregnancy that can results in massive obstetrics hemorrhage that often leads to hysterectomy.[1] It is associated with maternal and fetal morbidity and mortality, other consequences that can arise include need for blood transfusion, prolong hospital stay, injury to the bladder or bowel, multiple organ failure, increasing Intensive Care Unit AND Secial Care Baby Unit admission, prolong anesthesia and obstetrics hysterectomy.[2,3,4] The rise in caesarean section rate has increase the incidence of morbidly adherent placenta.[3,4] The risk of placenta accreta increases to 4%, 11%, 40%, and 61% with one, two, three and four previous cesarean sections respectively.[5] Prenatal diagnosis of morbidly adherent placenta provides the opportunity to prepare for delivery at a centre with adequate expertise and resources, and this has lead to reduction in maternal and fetal morbidity and mortality.[6] We report a case of morbidly adherent placenta in a 24 years old Nigeria nulliparous lady who was diagnosed intraoperatively.

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The Case

She was Mrs. AS a 24 years old G1P0+0 lady who was referred from a primary health centre on the need for abdominal delivery after 36 hours of active labour at 39 weeks 5 days gestation, she had presented in labour at the referral centre 24 hours prior to her presentation on account of labour pain of 5 hours duration and liquor drainage of 2 hours duration. She perceived fetal movement at presentation and had no history of bleeding per vaginum.

Mrs AS booked for antenatal care at referral centre at 16 weeks gestation and had no complaints at booking. Her booking blood pressure was 110/56mmhg and was normal. Her blood group was O Rhesus D positive and genotype was AA, random blood sugar was 99mg/dl and other serological evaluation and urinalysis were essentially normal. Her first and only obstetrics scan during her antenatal care was at 28 weeks gestation and was said to be normal.

Pregnancy was desired and spontaneously achieved after her first coital exposure in life. Mrs AS had 4 antenatal care visits before the onset of labour pains. During these periods, she received two doses of intramuscular tetanus toxoid injections at 16 and 20 weeks respectively and a dose of pyrimethamine and sulfadoxime for intermittent preventive treatment at 28 weeks. Her antenatal care period was uneventful. There was no history of vaginal bleeding or spotting, no history of haematuria nor other urinary symptoms and unusual abdominal pains during her pregnancy. She perceived fetal movements before and during the onset of labour pains and following her referral.

She was recently married in a monogamous setting to a 30 years cleagyman. She was not a known diabetic and hypertensive and she does not take alcohol or used tobacco in any form. Mrs AS has not had any uterine or abdominopelvic surgery in the past.

At presentation, a quick and detailed evaluation was done. She was febrile with a temperature of 37.9°C, anicteric but not dehydrated with a bilateral pitting pedal edema up to the knee, she had a body mass index (BMI) of 32kg/m^2. Her SPO2 at room air was 99%, respiratory rate was 28 cycle/min, blood pressure was 126/72 mmhg. The chest was clinically clear and the abdomen was uniformly enlarge with a uterus of 40 weeks pregnancy size. There was a singleton fetus in longitudinal lie, cephalic presenting. The presenting part was 3/5 palpable per abdomen, clinical estimated fetal weight was 4520g and the fetal heart rate was 168 – 171 beat per minutes. She had a normal vulvar and vagina. The cervix was 6 centimeter dilated and some evidence of caput succedaneum, but no moulding. A quick bed side ultrasound scan confirmed a viable term fetus with an estimated fetal weight of 4,350g. A Doppler ultrasound was not done. An assessment of a nullipara at term with suspected fetal macrosomia and cephalo – pelvic disproportion with fetal distress was made. Patients and husband were counseled on findings and the need for immediate abdominal delivery following resuscitation. Resuscitative measures were instituted. Anaesthetist, neonatologst and other supportive staff were invited. A written informed consent was obtained, two unit of blood was grouped and crossed matched and her packed cell volume was 34%.

At surgery, after the delivery of a 4,250g female baby, the placenta was difficult to deliver, on closer examination the placenta was morbidly adhere to the uterus deep to the myometral layer and attempt at manually removal of the placenta resulted in torrestial haemorrhage that yielded no response to all conservative measures including B-Lynch method. Following failure to secure adequate heamostasis, patient under epidural anesthesia and husband were further counseled on the challenges and the need for more radical and definitive measures such as subtotal hysterectomy to curtail the primary post partum haemorrhage and prevent maternal mortality, they consented. She subsequently had caesarean hysterectomy done. This was able to curtail the massive heamorrhage due to primary postpartum haemorrhage from morbidly adherent placenta in an unscarred uterus. Post operative period was managed based on the protocol was uneventful. She did well and was discharged home on her fourth post operative days along with her macrosomic baby that was managed by the neonatology.

Discussion

There are several causes of primary post partum heamorrhage, the most common cause is uterine atomy.[7] Others are morbidly adherent placenta, tissue factor, clotting factor among others.[7] In this patient the cause of primary postpartum haemorrhage was morbidly adherent planceta. It occurs when normally sited placental invasively penetrates the decidua basalis of the endometrium due to defect in the nitabuch layer.[3] This results in catastrophic heamorhage that threaten the live of the mother and even baby.[3] This placental invasion could be placenta accreta and increta both account for 90 percent of morbidly adherent placenta and placenta percreta which accounts for 10% of morbidly adherent placentae, where there is penetration through the entire myometrium and uterine serosa with possible invasion into other organs like the rectum, bladder and rarely, the broad ligament that may lead to difficult placental extraction in both exteriorized and non exteriorized uterus.[8] This patient had placenta increta. Incidence of morbidly adherent placenta has increased dramatically from 1:2500 to 1:110 deliveries

over the last few years.[7] This increase in incidence is largely due to increasing rate of caesarean section. Other risk factors for development of morbidly adherent placental include advance maternal age, placenta previs, and other uterine surgeries like myomectomy and D and C. this patient had no history of uterine surgery or D and C.[6] Diagnosis of morbidly adherent placenta can be during the antenatal period or at delivery, but definitive diagnosis is made at histology.[9] During the antenatal period an ultrasound scan with grayscale and color Doppler imaging, is the recommended first-line modality in patients with risk factors. Findings of Morbidly Adherent Placenta include non-visible Cesarean section scar, bladder wall interruption, thin retroplacental myometrium, presence of intraplacental lacunar spaces, presence of retroplacental arterial-trophoblastic blood flow, and irregular placental vascularization demonstrated by three-dimensional (3D) power Doppler.[2,9,10] This was not done for Mrs. AS as there was no identifiable risk factors and more so, her antenatal care was supervised at the primary health care centre. Some biochemical marker that can aid the diagnosis of morbidly adherent placenta has been postulated but findings are inconclusive.[9,11] Clinical presentation of patients with diagnosis of morbidly adherent placenta include antepartum hemorrhage, acute abdomen and abdominal pain while intrapartum it usually manifests as massive hemorrhage, retained products of placenta and uterine rupture.[9] Management of this condition could be conservative or surgical (hysterectomy). Conservative approach may be followed by medical management with use of methotrexate and antibiotics, internal iliac ligation, uterine artery embolization, D & C or hysteroscopic loop resection. Surgical management involves caesarean hysterectomy with or without bowel or urinary bladder resection.[7,12] Mrs. AS had subtotal hysterectomy without bowel or urinary bladder resection after a failed conservative measure. Though the measure was radical, it was a life saving Mrs AS. Mrs AS, will no longer be able to get pregnant due to the subtotal hysterectomy that she had but there are other ways to complete her family size if she is still desirous of pregnancy, this include surrogacy and adoption Morbidly adherent placenta is live threatening complication of pregnancy that can result in maternal and fetal morbidity and mortality if not handled with care.

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