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KNOWLEDGE OF GENITAL HERPES INFECTION AMONG ANTENATAL CLINIC ATTENDEES IN SOUTH-EASTERN NIGERIA

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ABSTRACT

Background: Herpes simplex virus (HSV) is a major cause of genital ulcer disease worldwide and a significant factor for increased risk of acquisition and transmission of the Human Immune Deficiency Virus (HIV). The determination of the level of knowledge of genital herpes is necessary for the design and implementation of its specific preventive strategies as well as the reduction of the contribution of genital herpes to HIV transmission.

Objective: To determine antenatal women's knowledge on genital herpes infection.

Design: A cross sectional descriptive study.

Setting: Antenatal clinic of Abia State University Teaching, Hospital, Aba, Nigeria.

Subjects: Three hundred and fifty consecutive and consenting antenatal clinic attendees of Abia State University Teaching Hospital (ABSUTH), Aba, South Eastern, Nigeria.

Results: Seventy nine respondents (22.6%) had ever heard of genital herpes whilst sixty two (17.7%) had ever had recurrent blisters around their genitals. Two hundred and sixteen respondents (61.7%) reported having had cold sores or blisters around the lips or mouth following an episode of fever. Seventy four (21.1 %) of the respondents knew that the virus that causes cold sores or blisters can be sexually transmitted. Higher educational levels attained and occupations other than being a housewife or farmer were associated with a greater awareness of genital herpes ($p < 0.05$) among the subjects.

Conclusion: The antenatal attendees showed a poor knowledge of genital herpes infection. Discussion of genital herpes should be considered in the antenatal clinic setting along with the counselling of pregnant women regarding genital herpes, HIV infection and maternal-to-child transmission of both HSV and HIV.

INTRODUCTION

Herpes simplex virus (HSV) is a highly prevalent sexually transmitted infection (STI) that results in genital herpes. The majority of infections are caused by HSV type 2 (HSV -2), although genital infections with HSV type 1 (HSV -1) are not uncommon (1). HSV-2 is a major cause of genital ulcer disease in sub-Saharan Africa, where HSV-2 seroprevalence among sexually active adults ranges from 50% to 90% (2). Genital ulcers have been associated with an approximately threefold increase of sexual HIV-1 transmission (3). HSV 1 and 2 can also be transmitted to the neonate, particularly in primary maternal infection. Significant mortality and morbidity are associated with neonatal infections (1). Thus, genital herpes is a disease of

major clinical importance. The determination of the level of knowledge of genital herpes is necessary for the design and implementation of specific prevention strategies as well as the reduction of the contribution of genital herpes to HIV transmission. However, very few studies on knowledge of genital herpes have been done in our region. This study aims to examine the level of knowledge of genital herpes infection in the resource restricted setting of Aba, South Eastern Nigeria. The results of the study will be useful for those counselling pregnant women regarding HSV and other STIs, the synergistic relationship between ulcerative STIs such as genital herpes and transmission of HIV, as well as the maternal-to-child transmission of both HSV and HIV. Hence, the need for this study.

MATERIALS AND METHODS

This was a hospital based study that was carried out between 1st July, 2008 and 1st September, 2008 at the antenatal clinic of Abia State University Teaching Hospital, Aba. Three hundred and fifty consecutive antenatal clinic attendees who gave informed consent to participate in the study were enrolled. A structured questionnaire developed by the authors was administered to elicit demographic data and knowledge of genital herpes infection. The wordings of the questionnaire were explained to the respondents in the vernacular for easier comprehension. Data analysis included descriptive statistics for demographic data and content analysis for interview data. Using Epi Info version 6, statistical comparisons were made using the Chi square test with Yates correction or Fischer's exact test as appropriate. P-value of < 0.05 was considered significant.

Ethical approval was obtained from the Ethical and Research Committee of Abia State University Teaching Hospital, Aba.

RESULTS

Three hundred and fifty consecutive antenatal clinic attendees were recruited for the study. Table 1 shows the socio-demographic characteristics. The average age of the subjects was 31.2 years. The majority (98.2%) were married. Seventy nine (22.6%) of respondents had ever heard of genital herpes whilst sixty two (17.7%) had ever had recurrent blisters around their genitals. Two hundred and sixteen of the respondents (61.7%) reported having had cold sores or blisters around the lips or mouth following an episode of fever. Seventy four (21.1%) knew that the virus that causes cold sores or blisters can be sexually transmitted (Table 2). Higher educational levels attained and occupations other than being a farmer or housewife were associated with a greater awareness of genital herpes among the subjects ($p < 0.05$) (Table 3).

Table 1
Socio-demographic characteristics of respondents

Characteristic	No.	(%)
Age in years		
≤19	1	0.3
20-29	121	34.6
30-39	222	63.4
40-49	6	1.7
Marital status		
Married	344	98.2
Single	3	0.9
Divorced	3	0.9
Educational level		
Primary	9	2.5
Secondary	191	54.6
Post secondary	150	42.9
Parity		
0	1	0.3
1	26	7.4
2	170	48.6
3	106	30.3
4	34	9.7
5	8	2.3
6	4	1.1
≥7	1	0.3

Table 2
Knowledge of genital herpes

Variable	No.	(%)
Ever heard of genital herpes		
Yes	79	22.6
No	271	77.4
Ever had recurrent blisters around your genitals or "private parts"		
Yes	62	17.7
No	288	82.3
Ever had cold sores or blisters around the lips or mouth following an episode of fever		
Yes	216	61.7
No	134	38.3
Virus that causes cold sores or blisters can be sexually transmitted		
Yes	74	21.1
No	276	78.9

Table 3
Socio-demographic factors influencing the knowledge of genital herpes

Variable	Never heard of genital herpes		Ever heard of genital herpes		Yates's corrected χ^2 test	P-value
	No.	(%)	No.	(%)		
Age in years						
≤ 19	1	0.3	0	0	$\chi^2=2.37$	0.50
20-29	99	28.3	22	6.3		
30-39	167	47.7	55	15.7	Df=3	NS
40-49	5	1.4	1	0.3		
Parity						
0	0	0	1	0.3	$\chi^2=4.79$	0.19
1-2	156	44.6	38	10.9		
3-4	107	30.6	35	10	Df=3	NS
≥ 5	10	2.9	3	0.9		
Level of education						
Primary	8	2.3	2	0.3	$\chi^2=14.05$	0.001
Secondary	165	47.1	29	8.3	Df= 2	
Tertiary	100	28.6	47	13.4		
Occupation						
Housewife	21	6	6	1.7		
Farmer	2	0.3	1	0.3	$\chi^2=29.77$	<0.001
Trader	123	35.1	15	4.3	Df=5	
Student	68	19.4	16	4.9		
Civil servant	43	12.3	32	9.1		
Corporate worker	17	4.9	6	1.7		

p= <0.05 NS=Not Significant Df=Degree of freedom

DISCUSSION

In this study, we determined the knowledge of genital herpes infection among antenatal attendees in Aba, South Eastern Nigeria. To the best of our knowledge, no similar study has been conducted in our region.

The study subjects showed a poor knowledge of genital herpes as only 22.6% of them had ever heard of genital herpes. Further, although 61.7% of the study subjects self-reported having had cold sores or blisters around the lips or mouth following an episode of fever in the past, thus indicating clinical HSV -1, only 21.1% knew that the virus that causes cold sores or blisters can be sexually transmitted. The poor knowledge of genital herpes exhibited is despite the fact that the study subjects are relatively educated as 97.5% of them had attained secondary school education or higher. Results of studies elsewhere also indicate that knowledge about genital herpes is generally poor among both patients and clinicians (4,5). Yet, other studies showed that antenatal populations in the United Kingdom and Australia had a good knowledge of genital herpes (1,6).

The low level of knowledge of genital herpes demonstrated in this study indicates that health education about genital herpes is warranted in the antenatal clinic setting and the contribution of genital herpes to HIV transmission emphasised. Further, education campaigns to raise the level of awareness about genital herpes among the public is also necessary. These public health measures will be most cost effective and beneficial in reducing genital herpes transmission as well as HIV prevention. The alternative preventive and management options of widespread screening for HSV-2 and suppressive antiviral therapy are too expensive to be implemented in the resource restricted sub-Saharan African countries on a large scale.

A study carried out in Coventry, England, among general medical practitioners demonstrated the lack of knowledge in some areas about genital herpes, especially recent information (7). Further, since clinician and patient education is an essential component of management of genital herpes (8), additional research should be conducted to assess health workers' knowledge of genital herpes in our setting. There is a paucity of recommendations or programmes specific to the prevention of genital herpes apart from the standard sexually transmitted infection guidelines worldwide. Until very recently, most sexually transmitted disease interventions have focused on bacterial STIs, which are easier to diagnose and treat than genital herpes. As a result,

little attention has been paid to the diagnosis of genital herpes and there has been a lack of prevention interventions; consequently, the epidemics of HSV-2 and HIV continue to fuel each other due to the synergistic relationship between ulcerative STIs such as genital herpes and the transmission of HIV (9).

In conclusion, the results of this study have shown that the knowledge of genital herpes amongst the antenatal clinic attendees is poor.

We recommended that, discussion of genital herpes should be considered in the antenatal clinic setting along with the counselling of pregnant women regarding genital herpes, HIV infection and maternal-to-child transmission of both HSV and HIV. Health education about genital herpes should be offered to the general populace in order to improve the currently low level of awareness of genital herpes.

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