



Clinico-Epidemiological Study of Viral Warts in University of Port-Harcourt Teaching Hospital, Rivers State, Nigeria

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Authors' contributions

This work was carried out in collaboration among all authors. Author DDA designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors DAA and BOO managed the analyses of the study. Author DAA managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Background: Warts are benign epidermal neoplasms resulting from infection with human papilloma viruses.

Aim and Objective: To determine the clinico- epidemiological profile of patients with warts.

Materials and Methods: A retrospective study was carried out in University of Port-Harcourt Teaching Hospital, Rivers State, Nigeria. All patients with warts that attended the dermatology clinic from June 2013 to June 2020 were included. Data of the patients were searched for detailed history, complete cutaneous, systemic examinations and retroviral screening. Analysis was done using Microsoft excel, 2013 software.

Results: One hundred and eighteen (118) patients were clinically diagnosed with viral warts during the study period. 36 (30.51%) had genital warts while 82 (69.49%) had non-genital warts. Males were more affected than females and the mean age at presentation was 25.04 years. The most common type of warts seen in children and adults was common warts. High risk behaviours was noted in 85% of patients with genital warts.

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Conclusion: Common warts were the most common warts with male preponderance. The head and neck were the most common site, but the extremities were more common in children. Patients in the second decade of life were mostly affected with majority concerned about the cosmetic appearance.

Keywords: Warts; clinico-epidemiological; retrospective study; UPTH.

1. INTRODUCTION

Warts are benign epidermal neoplasms resulting from infection with human papilloma viruses [1]. Human papilloma virus is associated with a wide range of diseases from asymptomatic and benign lesions to malignant lesions like squamous cell carcinoma [2-3]. Warts commonly occur in children and young adults, although it could appear at any age. The course is highly variable as most resolve spontaneously in weeks or months. They commonly appear at sites of trauma, in the genital area, in periungual regions from nail biting and on plantar surfaces [4-5]. Individual variations in cell-mediated immunity may explain differences in severity and duration [6]. Warts occur more frequently, last longer, and appear in greater numbers in patients with AIDS, lymphomas, and those on immunosuppressants [2,7-8]. Some types of warts are susceptible to therapy while others are resistant [1]. This study was done as a clinico-epidemiological study is important in understanding the epidemiologic, clinical and systematic aspects of the disease.

1.1 Aim and Objective

To determine the clinico-epidemiological profile of patients with warts attending the dermatology clinic in UPTH, Rivers state, Nigeria.

2. MATERIALS AND METHODS

A retrospective study was conducted between June 2013 to June 2020 in the University of Port-Harcourt Teaching Hospital, Alakahia, Rivers state. A total of five thousand, one hundred and six (5,106) patients visited the dermatology clinic during the study period. One hundred and eighteen (118) patients were clinically diagnosed with viral warts and included in the study. The study was performed on all 118 patients clinically diagnosed with viral warts. Data of the patients were searched for detailed history, complete cutaneous, systemic examinations and retroviral screening and recorded in a pro forma. Photographs were taken and data categorized

into genital and non-genital warts. Non genital warts were subdivided into three morphological types: common (verrucae vulgaris), palmoplantar and Epidermodysplasia verruciformis. Data was analysed using Microsoft Excel, 2013 software. Findings were tabulated and their proportions and percentages were noted.

3. RESULTS

The total number of patients that attended the dermatology clinic during the study period was five thousand, one hundred and six (5,106) patients. One hundred and eighteen (118) patients were clinically diagnosed with viral warts (2.311%). Of the 118 patients, 36 (30.51%) had genital warts while 82 (69.49%) had non-genital warts which included common warts, palmoplantar warts and EDV as 51 (43.22%), 15 (12.71%) and 16 (13.56%) respectively. Genital areas affected included the anus, female genitalia and male genitalia in the ratio of 1: 1.4: 2.1. Mean age at presentation was 25.04 years which ranged from 0 to 50 years. Most people belonged to the age group of 20-29 years (38.14%) followed by 30-39 years (22.03%) in both genders. Total number of males affected were 60 (50.85%) while females were 58(49.15%). Total number of children were 29 (24.58%) while adults were 89 (75.42%). Most patients had more than one concern/complaint but the most common was cosmetic appearance (91%) followed by pain (18%). Itching and bleeding on contact were also recorded. The head and neck (38.98%) were mostly affected followed by the genitals (30.51%), the extremities (19.49%) and then the trunk and abdomen (3.39%). 7.62% affected multiple sites; however, in the paediatric age group the extremities were mostly affected. The most common type of warts seen in children and adults is common warts occurring in 48.28% and 41.57% respectively. High risk behaviours such as multiple sexual partners were noted in 85% of patients with genital warts with 22.22% seen to be seropositive for HIV and 11.11% reactive to HCV Ab and HbsAg.

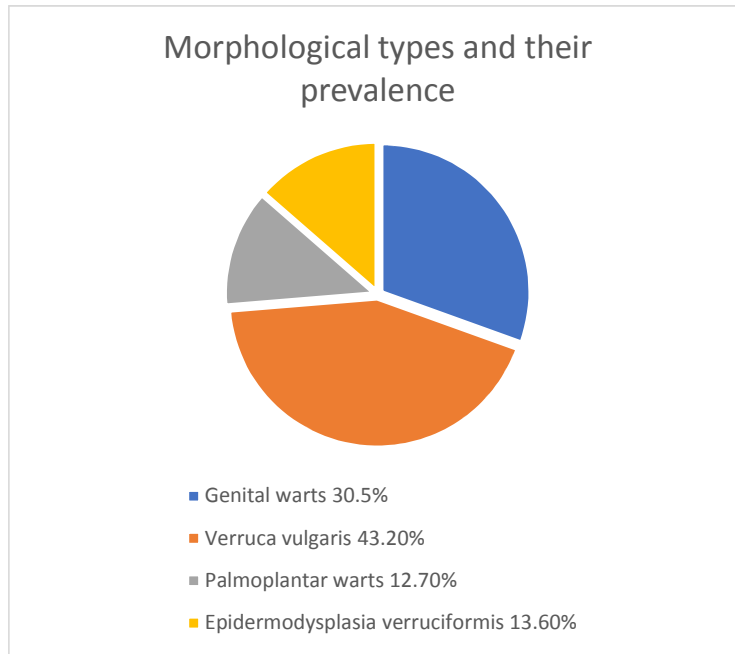


Fig. 1. Morphological types of warts and their prevalence

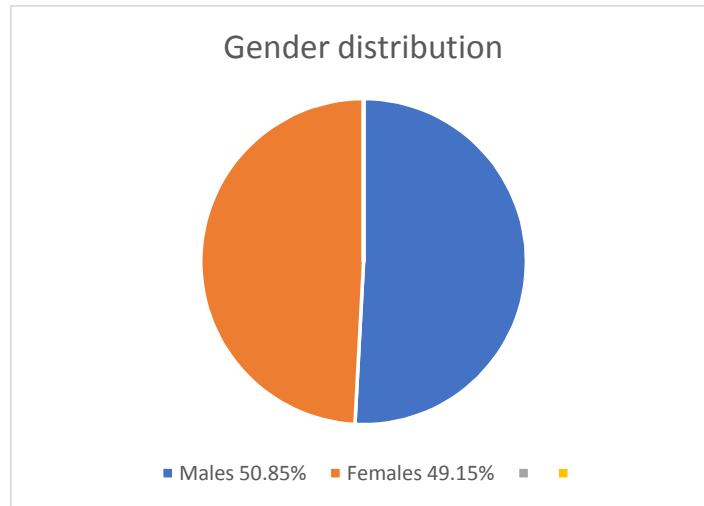


Fig. 2. Gender distribution of warts

Table 1. Age distribution of patients

Age distribution (in years)	Number of patients n=118 (%)
0-9	18(15.25)
10-19	18(15.25)
20-29	45(38.14)
30-39	26(22.03)
40-49	8(6.78)
>50	3(2.54)
Mean age in years	25.04

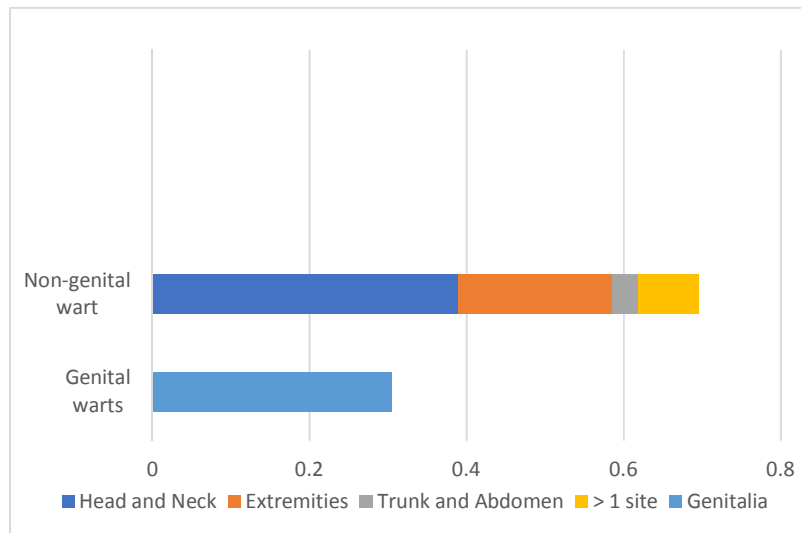


Fig. 3. Sites affected by warts

Table 2. Distribution of clinical types in children and adults

Clinical Types		Number of cases		Total
		Children	Adult	
Genital warts		7	29	36
Non-genital warts	Common (verrucae vulgaris)	14	37	51
	Palmoplantar	2	13	15
	Epidermodysplasia verruciformis	6	10	16



Fig. 4. Genital warts (Condyloma acuminata) in a 45-year-old male

4. DISCUSSION

The overall prevalence of wart from this study was 2.31%. The ratio of non-genital: genital warts was 2.3: 1. Prevalence of non-genital wart was highest in present study, among them were

common, palmoplantar and Epidermodysplasia verruciformis, with common warts being the commonest amongst the three types seen. In this present study, males were mostly affected. This is similar to studies done in India and China [9-10]. Warts were also seen more in adults than

children. Patients most affected was in their second decade similar to other studies done and could be as a result of trauma induced inoculation [11]. The head and neck were the most common sites involved in adults while in the paediatric age group the lesions affected the extremities more. The extremities were the commonest site involved in studies done in India

and China irrespective of the age group [9,11]. Cosmetic concern was the most common complaint, however, most patients had more than one complaint. High risk behaviours such as multiple sexual partners were noted in 85% of patients with genital warts with some seen to be seropositive for HIV, HCV and HBV.



Fig. 5. Common warts in a 7-year-old female



Fig. 6. EDV in a 9-year-old male with HIV

5. CONCLUSION

Our study concluded that common warts were the most common warts, with male preponderance. The head and neck were the most common site, but the extremities were more common in children. Patients in the second decade of life were mostly affected with majority concerned about their cosmetic appearance. A larger study that will include all other morphological forms of warts is advised.

CONSENT AND ETHICAL APPROVAL

As per international standard or university standard guideline participant consent and ethical approval has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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