

# Epidemiological Trends of Various STDs in Patients Attending Osmania General Hospital from Jan-Dec 2014

G Venkata Ramana<sup>1</sup>, P Malini<sup>2</sup>, Anand B<sup>3</sup>, N Arun<sup>3</sup>

## ABSTRACT

**Introduction:** Prevalence of Sexually transmitted diseases (STDs) at Osmania General Hospital from Jan-Dec 2014 was noted and compared with the other studies available in the literature. Study aimed to check the prevalence of STDs in patients attending OPD of Osmania General Hospital.

**Material and methods:** A total of 1558 patients of STDs were studied from January to December 2014. Case records of the patients attending the STD clinic of Osmania Medical College, Hyderabad were analyzed.

**Results:** Male to Female ratio was 2.7:1, Uneducated to educated were 1.23:1, Married to Unmarried were 2.31:1, commercial sex workers to known and unknown partners were 1:2:0.25. Maximum number of patients were in the third decade. The prevalence of Viral STDs were highest out of which herpes has the highest prevalence in both sexes, followed by other STDs. The most common STI in male was Candidial-Balanoposthitis and in female was Vagino-cervical discharge (candidial).

**Conclusion:** Our study from 2014Jan-Dec showed a declining trend in bacterial STIs and increasing trend of fungal and viral STIs as seen in developing nations.

**Keywords:** Sexually Transmitted Diseases, OGH, Out Patient Department, STIs

patients attending OPD of Osmania General Hospital.

## MATERIAL AND METHODS

Study was done in Osmania Medical College, Hyderabad after taking ethical clearance and informed consent. Case records of the patients attending the STD clinic of Osmania Medical College, Hyderabad, from January 1, 2014, to December 31, 2014, were analyzed.

Diagnosis was based on detailed history, clinical examination, and relevant investigations. The VDRL (Venereal Disease Research Laboratory) test, ELISA for HIV, Viral screening for Hepatitis B, Hepatitis C was done in all cases. In cases of genital ulcer, dark ground illumination (DGI), smear for multinucleated giant cells, Gram's stain, and Giemsa staining of tissue smears were done. In cases presenting with urethral discharge, a smear from the discharge was made and stained with Gram's stain, KOH and Biopsies wherever needed. The findings were recorded in the STD case file. A total of 1558 patients of STDs were studied from January to December 2014

### Inclusion criteria

All patients attending STD OPD of Osmania General Hospital

### Exclusion criteria

- 1) Patients not willing to participate in study
- 2) Pregnant females

## STATISTICAL ANALYSIS

Descriptive statistics like mean and percentages were used to interpret the data. Microsoft office 2007 was used for the statistical analysis and making graphs.

In our study, 1558 patients attending STD Outpatient department has been taken into consideration, of which males are 1154, females are 424 and transgenders are 38 (Graph 1).

STDs affecting married males were 624 and unmarried males were 530; STDs affecting married females were 284 and unmarried females were 140 (Graph 2).

Educated people affected by STDs were 1901 and uneducated people were 2345 (Graph 3). Uneducated people not knowing the consequences of sexual exposure were more prone to develop STDs.

STDs affected patients who were having sexual exposure with known partner and were more in number (958) compared to

## INTRODUCTION

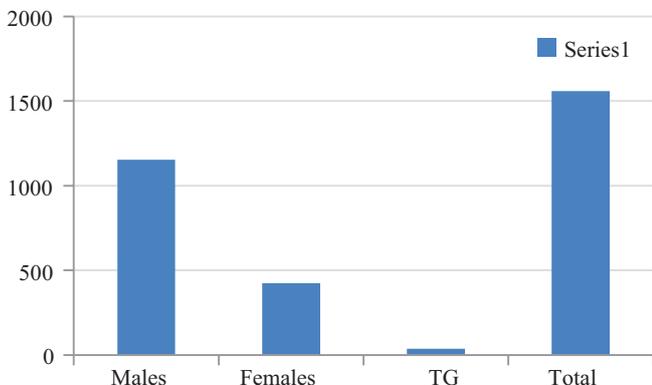
Sexually Transmitted Diseases constitute one of the major public health problems, especially in a developing country like India. Their pattern and incidence are influenced by many factors like socio-economic, geographical, pathogenicity of microbes, prevailing therapy, cultural and environmental factors, sex education and sexually active age groups. Study of STDs is important to know about their incidence at a particular place and to devise appropriate control measures. STIs differs from STD in that STD conventionally includes infections resulting in clinical diseases that may involve the genitalia and other parts of the body participating in sexual interaction e.g., syphilis, gonorrhea, chancroid, donovanosis, etc. STI, in addition, includes infections that may not cause clinical disease of genitals, but are transmitted by sexual interaction e.g., all STD and hepatitis B, human immunodeficiency virus (HIV), etc.<sup>1</sup> Nowadays, the term STI is preferred, since it covers all the diseases that can be transmitted by sexual intercourse. However, for all practical purposes, both STI and STD terms are used synonymously. STIs are more dynamic than other diseases prevailing in the community. Their epidemiological profile varies from country to country and from one region to another within a country, depending upon ethnographic, demographic, socioeconomic and health factors. The clinical pattern is also a result of the interaction among pathogens, the behaviors that transmit them and the effectiveness of preventive and control interventions.<sup>2</sup> Study aimed to check the prevalence of STDs in

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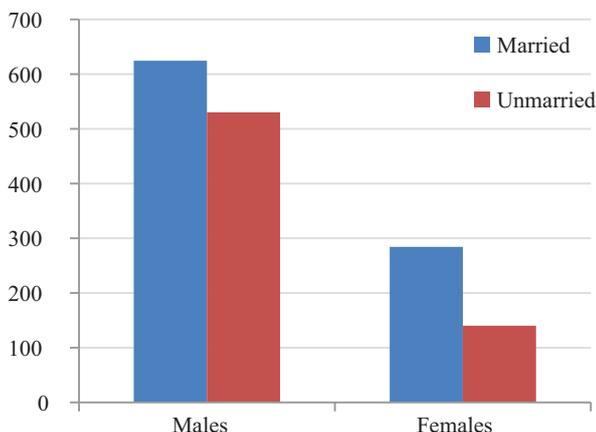
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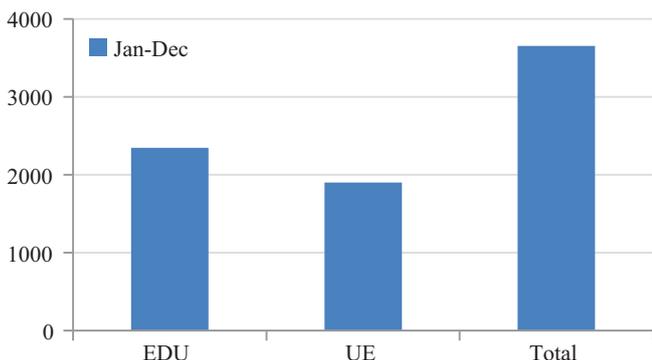
commercial sex workers (504) and Unknown partner(145) (Graph 4). Patients affected with HIV were more in number (339) followed by Herpes (251), warts (49), Molluscum contagiosum (40) and Hepatitis B (61). In patients attending OPD least common infection was Hepatitis C (18).



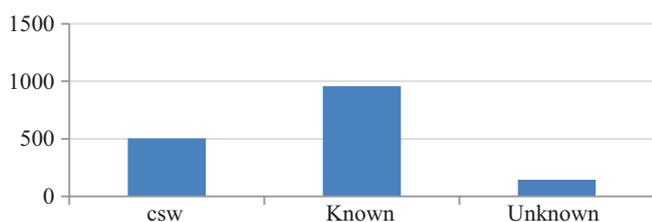
Graph-1: graphical representation of patients with STDs according to sex



Graph-2: Graphical representation of STDs according to marital status



Graph-3: Graphical representation of STDs according to literacy status



Graph-4: graphical representation of STDs according to type of sexual exposure

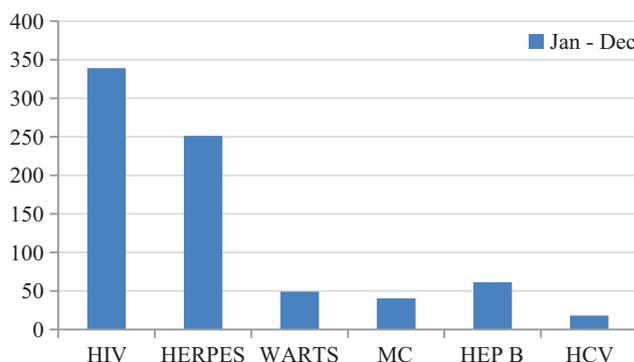
More patients affected with STDs were in 26-40 age group (968), in that males were affected more (702) than females (266).

Candidal Balano-Posthitis (CBP) was common affecting 388 male patients attending OPD, followed by Genital Ulcer Discharge Herpetic: GUD-H (258), Non-Gonococcal Urethritis (174), Syphilis (87) and Genital Ulcers (58).

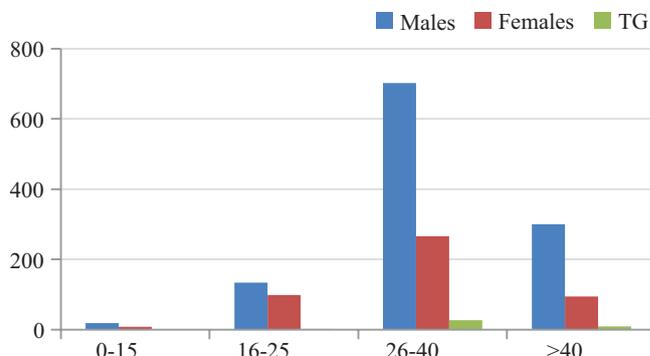
In female patients, Vaginal Candidiasis was common (115) followed by Genital Ulcer Discharge:GUD-H (79)and Non-Gonococcal Urethritis (72). In transgenders, most common STD was Non-Gonococcal Urethritis (12).

DISCUSSION

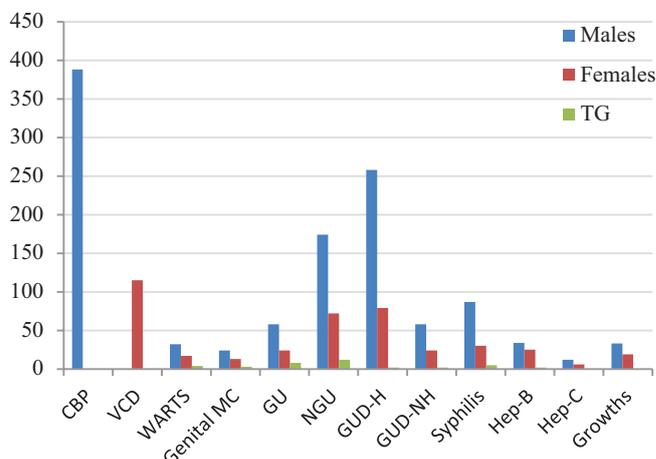
A number of epidemiological studies have been done on the pattern and changing trends of STDs.<sup>3-8</sup> In our study, the majority (63.8%) of the patients were in the age-group of 25-40 years, as has been seen in other studies also;<sup>3-8</sup> this clustering



Graph-5: Graphical representation of each STD



Graph-6: Graphical representation of STDs according to age



Graph-7: Graphical representation of individual STDs

of patients in the above age-group is mainly due to the high sexual activity at this age. Most of the patients were males which is also in agreement with other studies.<sup>3-8</sup> The attendance of female patients was less, which might be due to social and cultural restrictions, the asymptomatic nature of the disease in females, and the fact that female patients prefer to attend the gynaecology department for treatment of such problems.

The prevalence of STDs was found to be equal in married and unmarried male subjects, which is in contrast to the findings of other studies where married males were more affected.<sup>5,7</sup> Of the affected males, 40% gave history of premarital sexual contact. Married females outnumbered unmarried female patients, which is consistent with other studies.<sup>3,5-7</sup>

Our study showed that there is an increase in number of commercial sex workers (CSW) and MSM attending the STI clinic, probably due to the active role played by the NGOs under the guidance of NACO.

Most common STI in males was candidal balanoposthitis with an incidence of 21.6% and in females was vaginal/cervical discharge (candidal) with an incidence of 7.3%.

The second most common STD was Genital Herpes.<sup>9</sup> Its incidence was 15.8% in both sexes. The incidence of herpes genitalis was almost equal to that seen at Davangere (13.04%)<sup>6</sup> but lesser than that found at Ahmedabad (32%) and Kottayam (24.40%).<sup>7</sup> Syphilis was found to have an incidence of 7.8% -much lower than studies like Ahmedabad (14.29%)<sup>5</sup> and Davangere (15.95%)<sup>6</sup> and Kottayam (42.1%).<sup>7</sup>

Next in the order of frequency was NGU, with an incidence of 16.5%. The incidence of AGU (5.8%) was lesser than that of NGU which is in contrast with the studies done at Ahmedabad (10.88%)<sup>5</sup> and Davangere (10.14%).<sup>6</sup> Other STDs seen, in decreasing order of frequency, were genital warts, Genital MCs, Genital Growths (LGV and donovanosis).<sup>10,11</sup>

From the above discussion, it is evident that viral STDs are on a rise and STDs with a bacterial etiology are showing a downward trend. This changing trend is probably because of the widespread use of antibacterials and self-medication, as also the syndromic approach to treatment used by general physicians and primary health centers. Similar studies at different levels are very essential to detect the changing trends as they assist in the formulation of the national STD and AIDS control programme.<sup>10-12</sup>

Our study showed that the commonest STI in HIV patients was genital herpes which was similar to Devi et al.<sup>10</sup> study and Kavina et al.<sup>5</sup> study.<sup>12</sup>

## CONCLUSION

Our study from January 2014 to December 2014 showed a declining trend in bacterial STIs and increasing trend of fungal and viral STIs as seen in developing nations. A comprehensive study of the epidemiological data is very important to identify the pattern of STIs for preventive and control measures to curb these infections by the government and non- government organizations. In order to decrease the incidence and prevalence of STIs and HIV we need to further impart health education, counseling and ensure regular follow up of the patients and their partners and improve the standards of health care facilities.

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