

# A retrospective study to assess the trends of Sexually Transmitted Infections among the patients attending Skin and STD OPD KIMS, Hubli

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## Abstract

**Background & Objectives:** Sexually transmitted infections are on focus since the advent of HIV, as they contribute to the spread of the disease. To simplify the detection of STIs at the community level syndromic approach has been introduced. There is a shift in the trend of aetiology from bacterial to Viral. However the information available on these changing trends is very limited. The present retrospective study was conducted to study the trends of sexually transmitted infections in KIMS, Hubli.

**Method:** A retrospective study where data was collected from the previous records of patients attending Skin and STD OPD, KIMS Hubli. The data was entered in MS Excel and analysed using SPSS software.

**Results:** The study showed that prevalence of STI is highest in the age group of 25-44 years (56.54%), and among females (11.2%) with vaginal discharge being the most common presenting complaint (38.7%). The prevalence of HIV among patients attending skin & STD OPD, KIMS, Hubli was found to be 5.04% during the year 2012

**Conclusion:** The average prevalence of STI is 5.36% during years 2008-2012. There is an increase in the detection of HIV positive status among the patients attending skin & STD OPD, through the years.

**Keywords:** Sexually transmitted infections, trends, retrospective study

## Introduction

Every year there are over 340 million new cases of sexually transmitted infections, 75–85% of them occurring in developing countries according to WHO.<sup>1</sup> 40 million new cases occur each year in India.<sup>1</sup>

The sufferings of majority of women who had RTI are mainly because of complications like infertility,

pelvic inflammatory disease and cervical cancer.<sup>1</sup>

With the advent of HIV, STDs have become one of the major public health problems.<sup>2</sup>

There is a huge impact of STDs on health and economics of a nation. HIV pandemic has forced to focus on the prevention of these diseases as they are the key factors in HIV transmission.<sup>3</sup>

Bacterial infections like syphilis and gonorrhoea were dominating in India during 1960s and 1970s. With the spread of HIV and the changing life style and behaviour have led to a rise in viral infections.<sup>4</sup>

The socio-demographic and clinical knowledge in STI population can contribute to the necessary changes in the improvement of already existing preventive

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programs.<sup>5</sup>

This retrospective study was carried out to determine the changing trends of STIs among the patients attending skin and STD OPD KIMS, HUBLI.

### Methodology

The study was started with orientation to records maintained in skin and STD OPD, KIMS, Hubli. The records were maintained on monthly basis with entries of all cases attending with complaints of STI for whom various laboratory examinations were done for the diagnosis of STI.

Entries were made under the following headings:

- Name of the STD clinic/hospital.
- Reporting period- month and year.
- No. of patients availed STI services in the month.

- STI syndromic diagnosis.
- Details of other services provided to patients with STI complaints in this month.
- STI service provision HRGs in the month.
- ANC syphilis screening in the month.
- Laboratory diagnosis in the month.

The records from January 2008 to June 2012 were retrieved and data was collected and recorded systematically for all the patients of STI attending skin and STD OPD during this period.

The data was segregated and analysed. Various demographic factors were studied; the information was tabulated and interpreted. The data was presented as frequencies and percentages.

### Results

**Table 1: Table showing the total number of patients attending the skin and STD OPD for STIs at KIMS, Hubli**

| Year | Gender/ Total | No. of cases |
|------|---------------|--------------|
| 2008 | Male          | 10026        |
|      | Female        | 6371         |
|      | Total         | 16397        |
| 2009 | Male          | 8544         |
|      | Female        | 5489         |
|      | Total         | 14033        |
| 2010 | Male          | 6024         |
|      | Female        | 4630         |
|      | Total         | 10654        |
| 2011 | Male          | 7158         |
|      | Female        | 5172         |
|      | Total         | 12330        |
| 2012 | Male          | 3423         |
|      | Female        | 2354         |
|      | Total         | 5777         |

The above table shows the total number of STI cases attending Skin and STD OPD

**Table 2: Prevalence Of STI among patients attending skin & STD OPD, KIMS, Hubli**

| Years  | 2008 | 2009 | 2010 | 2011 | 2012  |
|--------|------|------|------|------|-------|
| Male   | 50   | 97   | 73   | 37   | 87    |
| %      | 0.5  | 1.1  | 1.21 | 0.52 | 2.54  |
| Female | 43   | 59   | 699  | 517  | 686   |
| %      | 0.67 | 1.07 | 15.1 | 10   | 29.14 |
| Total  | 93   | 156  | 772  | 554  | 773   |
| %      | 0.57 | 1.11 | 7.25 | 4.49 | 13.38 |

From the above table we can see that the prevalence of STI has gradually increased over a period of time to 13.38% in 2012.

**Table 3: Table showing the difference in the STI trends according to age and gender**

| Age group          | Years | Male | %     | Female | %     | Total | %     |
|--------------------|-------|------|-------|--------|-------|-------|-------|
| Less than 20 years | 2009  | 5    | 3.2   | 0      | 0     | 5     | 3.2   |
|                    | 2010  | 1    | 0.13  | 57     | 7.38  | 58    | 7.51  |
|                    | 2011  | 0    | 0     | 13     | 2.33  | 13    | 2.33  |
|                    | 2012  | 1    | 0.13  | 36     | 4.65  | 37    | 4.78  |
| 20-24 years        | 2009  | 14   | 8.97  | 3      | 1.92  | 17    | 10.89 |
|                    | 2010  | 5    | 0.64  | 98     | 12.69 | 103   | 13.34 |
|                    | 2011  | 3    | 0.54  | 85     | 15.34 | 88    | 15.88 |
|                    | 2012  | 18   | 2.32  | 116    | 15    | 134   | 17.32 |
| 25-44 years        | 2009  | 56   | 35.85 | 46     | 29.48 | 102   | 65.38 |
|                    | 2010  | 51   | 6.61  | 367    | 47.54 | 418   | 54.15 |
|                    | 2011  | 26   | 4.69  | 294    | 53.06 | 320   | 57.75 |
|                    | 2012  | 40   | 5.17  | 415    | 53.68 | 455   | 58.85 |
| More than 44 years | 2009  | 22   | 14.1  | 10     | 6.41  | 32    | 20.51 |
|                    | 2010  | 18   | 2.33  | 143    | 18.52 | 161   | 20.85 |
|                    | 2011  | 12   | 2.16  | 106    | 19.13 | 118   | 21.23 |
|                    | 2012  | 28   | 3.62  | 119    | 15.39 | 147   | 19.01 |

From the data in the above table, we can see that majority of the patients of STIs were in the age group of 25-44 years in all the four years and in all the years females were the majority except for the year 2009 where males were more in number when compared to females (Table 3).

**Table 4: Table showing the trends of Genital Herpetic Ulcer and Genital Non Herpetic Ulcer from 2008-2012**

| Lesion                     | Year   | 2008 | 2009  | 2010 | 2011 | 2012 |
|----------------------------|--------|------|-------|------|------|------|
| Genital Herpetic Ulcer     | Male   | 16   | 58    | 44   | 24   | 11   |
|                            | %      | 17.2 | 37.17 | 5.7  | 4.33 | 1.42 |
|                            | Female | 16   | 20    | 30   | 18   | 5    |
|                            | %      | 17.2 | 12.82 | 3.88 | 3.24 | 0.64 |
|                            | Total  | 32   | 78    | 74   | 37   | 16   |
|                            | %      | 34.4 | 49.99 | 9.58 | 6.67 | 2.06 |
| Genital Non Herpetic Ulcer | Male   | 6    | 12    | 3    | 11   | 0    |
|                            | %      | 6.45 | 7.69  | 0.38 | 1.98 | 0    |
|                            | female | 2    | 4     | 0    | 5    | 1    |
|                            | %      | 2.15 | 2.56  | 0    | 0.9  | 0    |
|                            | total  | 8    | 16    | 3    | 16   | 1    |
|                            | %      | 8.6  | 10.25 | 0.38 | 2.88 | 0    |

Genital Herpetic ulcer was equal in both males and females during the year 2008 and after that more males were detected and the maximum number of cases detected was during the year 2009. Genital non herpetic ulcer was more common in males and in 2012 there was only one case. (Table 4)

**Table 5: Symptomatology of the patients attending Skin and STD OPD, KIMS HUBLI.**

| Symptom            | Years  | 2008 | 2009 | 2010 | 2011  | 2012  |
|--------------------|--------|------|------|------|-------|-------|
| Lower abdomen Pain | Male   | 0    | 0    | 0    | 0     | 0     |
|                    | %      | 0    | 0    | 0    | 0     | 0     |
|                    | Female | 0    | 0    | 244  | 177   | 129   |
|                    | %      | 0    | 0    | 31.6 | 31.95 | 16.68 |
|                    | Total  | 0    | 0    | 244  | 177   | 129   |
|                    | %      | 0    | 0    | 31.6 | 31.95 | 16.68 |

**Cont... Table 5: Symptomatology of the patients attending Skin and STD OPD, KIMS HUBLI.**

|               |        |      |      |      |      |      |
|---------------|--------|------|------|------|------|------|
| Inguinal Bubo | Male   | 0    | 3    | 0    | 2    | 1    |
|               | %      | 0    | 1.92 | 0    | 0.36 | 0.13 |
|               | Female | 2    | 0    | 0    | 0    | 0    |
|               | %      | 2.15 | 0    | 0    | 0    | 0    |
|               | Total  | 2    | 3    | 0    | 2    | 1    |
|               | %      | 2.15 | 1.92 | 0    | 0.36 | 0.13 |
| Genital wart  | Male   | 5    | 3    | 5    | 1    | 0    |
|               | %      | 5.37 | 1.92 | 0.64 | 0.18 | 0    |
|               | Female | 3    | 6    | 0    | 0    | 1    |
|               | %      | 3.22 | 3.84 | 0    | 0    | 0.13 |
|               | Total  | 8    | 9    | 5    | 1    | 1    |
|               | %      | 8.6  | 5.76 | 0.64 | 0.18 | 0.13 |

Lower abdomen pain was the most common symptom among females during the years 2010 to 2012 (Table 5)

**Table 6: Prevalence of HIV among patients attending skin & STD OPD, KIMS, Hubli**

| Year   | 2008 | 2009  | 2010 | 2011 | 2012 |
|--------|------|-------|------|------|------|
| Male   | 0    | 7     | 6    | 4    | 12   |
| %      | 0    | 4.48  | 0.77 | 0.72 | 1.54 |
| Female | 0    | 14    | 11   | 0    | 27   |
| %      | 0    | 8.97  | 1.42 | 0    | 3.49 |
| Total  | 0    | 21    | 17   | 4    | 39   |
| %      | 0    | 13.46 | 2.19 | 0.72 | 5.04 |

5% of the total patients with STIs were found to be positive for HIV during the year 2012 which was 13.5% during the year 2009 (Table 6).

## Discussion

In this study, we found that the prevalence of STI among the patients attending SKIN AND STI OPD, KIMS, Hubli is 5.36% during the study period JAN 2008 TO JUNE 2012. STI prevalence during each year is

- Ø 2008- 0.57%
- Ø 2009-1.11%
- Ø 2010-7.25%
- Ø 2011-4.49%
- Ø 2012-13.39%

The prevalence of STI is more in the age group 25 – 44 years (56.54%) which is different from a study conducted by Dr. V K Jain where 54 % of the patients with STI were 21-30 years.<sup>3</sup>

The prevalence of STI is high in females (11.2%) than males (1.17%) in contrast to the previous study made by Dr. V K Jain, et al. where the male:female ratio was found to be 5:1.<sup>3</sup>

And one more study conducted by T S Chandragupta et.al. was also in contrary to our study where majority were males and were in third decade of their life.<sup>6</sup>

In our present study, vaginal discharge is the most common syndrome with a prevalence of 53.68% in 2012 which was about 23.66% in 2008 which is similar to a study conducted by Sangeetha S Balamurugan (32.77%).<sup>1</sup>

The second most common syndrome was lower abdominal pain with a prevalence of 26.7% in accordance with the similar study made by Sangeeta S Balamurugan (23.48 %).<sup>1</sup>

The third most common STD was genital ulcer herpetic with prevalence about 20.54%.

The next in the list was AIDS with prevalence of 5.3%.

The next to follow were non herpetic genital ulcer (4.42%) and genital warts (3.06%).

There is a change in the trend of STIs as we can see a gradual rise in the cases of many viral infections with

increase in the detection of STIs by the health workers because of syndromic approach, many studies also show a similar trend of increasing Viral STIs.<sup>7,8</sup>

More studies should be conducted to note the changes in the trends during the course of time to help in the improvement of the existing strategies followed.

## Conclusion

In the retrospective study conducted the total prevalence of STI is found to be 5.36% and STIs are more prevalent in the age group of 25- 44 years. STIs are more prevalent among females than males with vaginal discharge being the most common syndrome.

## Limitations

1. Data about socio economic status, religion and marital status was not available and could not differentiate between urban and rural population.
2. The population under the study could not be defined exactly since the hospital caters for a very large population from various regions of North Karnataka.
3. The results cannot be generalised to the community.

## Recommendations

1. To conduct prospective studies to find out the trends of STIs, at community level.
2. To strengthen awareness about transmission of disease among the people more so among females.
3. To create awareness among people about the preventive measures.
4. Health campaigns should be conducted regularly by public health workers.
5. Promotion of female literacy.
6. Early diagnosis and prompt treatment must be encouraged.

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**Ethical Approval:** Not required

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