Syndromic diagnosis analysis of patients attending STI clinic, DVL department of a tertiary care hospital

Dr S. Suryanarayana2, Dr G. Venkata Ramana1, Dr. K. Sirisha2, Dr T. Naresh1, Dr B. Udayakumar
Department of DVL, Osmania Medical College& Hospital1, Dept. of DVL Government Medical college2, Nizamabad

Abstract

Background: Sexually transmitted infections (STIs) increase the risk of transmission of Human Immunodeficiency Virus (HIV) infection causing immense need to understand the patterns of STIs prevailing in the regions of a country for proper planning and implementation of STI control strategies. Due to resource constraints in the country, information regarding the profile of STIs relies essentially on syndromic diagnosis. Syndromic approach is based on the approach, grouping of a commonality, constellation of symptoms and easily recognised signs associated with a number of well defined aetiologies. Treatment is provided covering the majority of the organisms locally responsible for the syndrome.

Aims & Objectives: To study the relative number of STI/RTI syndrome diagnosis made among patients attending STD clinic, OGH, Hyderabad for a period of 2 years from March 2010 – February 2012.

Results: In the study population, 51.6% were males and 48.4% were females. The overall most common group included other STIs than syndromes depicted by NACO which includes condylomata acuminata, molluscum contagiosum, genital scabies, balanoposthitis etc. (40.5%) followed by vaginal/cervical discharge (24.7%), GUD-H (21.9%), urethral discharge (6.5%), GUD-NH (4.5%), lower abdominal pain (1.7%) in decreasing order. In females, most common STI was vaginal-cervical discharge while in males other STI’s accounted for the maximum. Among STI syndromes, vaginocervical discharge was the most common STI (41.5%) followed by GUD-H (37%) and urethral discharge (10.9%). In females, the most common STI was combination of cervical and vaginal discharge (41.5%) while in males GUD-H was the commonest (56.8%).

Conclusion: Viral STIs such as herpes genitalis and condylomata acuminata are on the rise among STI/RTI clinic attendees due to the occurrence of asymptomatic shedding, no cure for viral STIs, partial treatment or modified course of the bacterial STDs, thereby leading to apparent reduction in the total number of cases of STDs attending STD clinics, as well as a decrease in the proportion of bacterial to viral STDs.

Key Words: Syndromic diagnosis     STI    HIV/AIDS

I. Introduction

Sexually transmitted infections (STIs) including HIV, continue to present major health, social, and economic problems in the developing world, leading to considerable morbidity, mortality, and stigma. The prevalence rates apparently are far higher in developing countries because of higher sexual promiscuity, lack of awareness of protective measures and inadequate access to treatment. [1]

The signs and symptoms of the various STDs are variable and so making accurate clinical diagnosis is prone for error. Only about 70% of single infections of genital ulcer disease are correctly diagnosed clinically. [2] In a recent report of a study in Nairobi, Kenya, only 40% of chancre and 24% of syphilis infections were correctly diagnosed clinically. Laboratory-confirmed aetiologic diagnosis is the usual approach used in the management of many diseases and is therefore considered “scientific” by many doctors. Involving the use of microscopy, cultures and serology, this approach is expensive and could lead to delays in diagnosis. Laboratory support is often unavailable in many resource-poor countries or may be located in the urban centres and thus serve a limited segment of the population. Patients may have to travel long distances from peripheral health centres to specialist or laboratory facilities in cities. Many patients with STD have mixed infections. The limitations of clinical diagnosis without tests and laboratory-based aetiological diagnosis have led to development of the syndromic approach.

In 1991, Syndromic management approach was developed by World Health Organization (WHO) to address the limitation of etiological and presumptive diagnosis. The syndromic approach does not require identification of the underlying aetiology. Instead, it is based on the identification of a syndrome—that is, a constellation of symptoms and easily recognised signs associated with a number of well defined aetiologies with
Syndromic diagnosis analysis of patients attending STI clinic, DVL department of a tertiary...

a commonality. Treatment is provided for the majority of the organisms locally responsible for the particular syndrome.

Syndromic management of various STD’s include:
1. Vaginal discharge syndrome (VDS)
2. Male Urethral discharge syndrome (MUS) - Presenting with Urethral discharge/ Dysuria
3. Lower abdominal pain (LAP)
4. Genital ulcer disease/syndrome (GUD/GUS):
   • GUD-H (Herpetic)
   • GUD-NH (Non-Herpetic)

5. Inguinal bubo syndrome
6. Scrotal swelling

It rapidly became clear that the syndromic approach offered enormous advantages compared to the traditional approach, although more evidence is needed to rationalise and convince policy makers. Algorithms based on a syndromic approach were evaluated in many different settings, results of which were reported in the late 1990s—for example in a supplement of STI. In a study in South Africa, for instance, the syndromic management protocols provided adequate treatment for more than 90% of patients with genital ulcer syndrome (GUS). By the late 1990s, the syndromic approach was largely promoted and used worldwide.

Advantages of Syndromic case management:
1. Simple, problem-oriented; based on presenting symptoms
2. Rapid initiation of therapy at first visit
3. Immediate treatment reduces complications and further infection transmission
4. High rates of cure
5. Cost effective
6. Can be easily integrated into PHC system
7. Even if clinical diagnosis is wrong treatment will be correct.

There is enough evidence now that the syndromic approach is effective and has had an impact on the STI epidemic. Dramatic declines in STI rates have been observed following control strategies based on the syndromic approach, such as in sex workers in Côte d’Ivoire, Senegal and South Africa, and in STI clinics in Kenya and in Burkina Faso. The studies in Mwanza (Tanzania) and Masaka (Uganda) demonstrated the impact of syndromic management beyond the STI clinic attendees they targeted by decreasing STI prevalences in the general population: serological syphilis by 20% and male urethritis by 50% in Mwanza, and gonorrhoea by 70% in Masaka. The declining prevalence of bacterial infections in some of the key syndromes in parts of Africa is a testimony to the success of widespread syndromic management use.

II. Aims & Objectives:
To study the relative number of STI/RTI syndromes diagnosis among patients attending STD clinic, OGH, Hyderabad for a period of 2 years from March 2010-February 2012.

III. Materials & Methods:
A total no. of 2917 patients were evaluated from March, 2010-Feb, 2012. Detailed history and clinical features were recorded from all the patients. STIs were categorized in different syndromes as depicted by NACO in the syndromic management of STIs. The syndromes depicted by NACO are urethral discharge, cervicitis, anorectal discharge, vaginal discharge, genital ulcer disease herpetic and nonherpetic (GUD-H and GUD-NH), inguinal bubo, lower abdominal pain, scrotal swelling, etc. STIs, which were not included in the syndromic management such as molluscum contagiosum, condyloma acuminata, genital scabies and balanoposthitis were detected clinically and grouped in other STI. The proportions were calculated for various syndromes and disease prevalence.

IV. Results
In the study population, 51.6% (1504/2917) were males and 48.4% (1413/2917) were females. The overall most common group included STI’s other than syndromes depicted by NACO which includes condyloma acuminata, molluscum contagiosum, genital scabies, balanoposthitis etc(40.5%) followed by vaginal/cervical discharge (24.7%), GUD-H (21.9%), urethral discharge (6.5%), GUD-NH (4.5%), lower abdominal pain (1.7%) in decreasing order. In females most common STI was vagino-cervical discharge(50.9%) while in males other STI’s accounted for the maximum number of STI (54.8%).

DOI: 10.9790/0853-141281115  www.iosrjournals.org 12 | Page
Table 1: Prevalence of various STD’s:

<table>
<thead>
<tr>
<th>STI</th>
<th>MALE (%)</th>
<th>FEMALE (%)</th>
<th>TOTAL (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCD</td>
<td>-</td>
<td>720 (50.9)</td>
<td>720 (24.7)</td>
</tr>
<tr>
<td>UD</td>
<td>190 (12.6)</td>
<td>-</td>
<td>190 (6.5)</td>
</tr>
<tr>
<td>LAP</td>
<td>-</td>
<td>52 (3.6)</td>
<td>52 (1.7)</td>
</tr>
<tr>
<td>GUD-H</td>
<td>386 (25.6)</td>
<td>255 (18)</td>
<td>641 (21.9)</td>
</tr>
<tr>
<td>GUD-NH</td>
<td>103 (6.8)</td>
<td>28 (1.9)</td>
<td>131 (4.5)</td>
</tr>
<tr>
<td>OTHERS</td>
<td>825 (54.8)</td>
<td>358 (25.3)</td>
<td>1183 (40.5)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1504</td>
<td>1413</td>
<td>2917</td>
</tr>
</tbody>
</table>

Among STI syndromes, vagino-cervical discharge was the most common STI (41.5%) followed by GUD-H (37%) and urethral discharge (10.9%). In females, the most common STI was combination of cervical and vaginal discharge (41.5%) while in males GUD-H was the commonest (56.8%).

Table 2: Prevalence of STI Syndromes

<table>
<thead>
<tr>
<th>STI SYNDROME</th>
<th>MALE (%)</th>
<th>FEMALE (%)</th>
<th>TOTAL (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCD</td>
<td>-</td>
<td>720 (68.3)</td>
<td>720 (41.5)</td>
</tr>
<tr>
<td>UD</td>
<td>190 (28)</td>
<td>-</td>
<td>190 (10.9)</td>
</tr>
<tr>
<td>LAP</td>
<td>-</td>
<td>52 (5)</td>
<td>52 (3)</td>
</tr>
<tr>
<td>GUD-H</td>
<td>386 (56.8)</td>
<td>255 (24)</td>
<td>641 (37)</td>
</tr>
<tr>
<td>GUD-NH</td>
<td>103 (15.2)</td>
<td>28 (2.7)</td>
<td>131 (7.5)</td>
</tr>
<tr>
<td>OTHERS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>679</td>
<td>1055</td>
<td>1734</td>
</tr>
</tbody>
</table>

Genital ulcer disease was more common in males (63.4) than in females (36.6%). Herpes genitalis was more common than Non-herpetic ulcer disease with a ratio 5:1.

Table 3: Sex distribution of Genital ulcer disease

<table>
<thead>
<tr>
<th>Genital Ulcer Disease</th>
<th>Males (%)</th>
<th>Females (%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>GUD-H</td>
<td>386 (60.2)</td>
<td>255 (39.8)</td>
<td>641</td>
</tr>
<tr>
<td>GUD-NH</td>
<td>103 (78.6)</td>
<td>28 (21.4)</td>
<td>131</td>
</tr>
<tr>
<td>TOTAL</td>
<td>489 (63.4)</td>
<td>283 (36.6)</td>
<td>772</td>
</tr>
</tbody>
</table>
V. Discussion

There is a dearth of information regarding the epidemiology of STI's in India due to many reasons such as stigma and discrimination associated with the STI, lack of interdepartmental coordination for studies, poor attendance of STI patients at the public clinics and Government institutions, and availability of limited diagnostic facilities. This analysis offers a view into the burden and pattern of various STIs and on the prevalence of syndromic diagnosis of STI's at a tertiary centre.

In our study, the peak age group of patients ranges from 20 to 30 years (60%). Also, majority of the male patients had promiscuous behavior suggesting that professional prostitution still remains the main source of STI among men having promiscuous behavior. Several other studies reveal high incidence of STI's in the age group of 20-30 yrs.[16]

In our study vagina-cervical discharge was the most common STI syndrome which is consistent with the results of Goel SS study where vaginal discharge was found in 43.75% of patients followed by genital ulcer syndrome. lower abdominal pain and urethral discharge.[14] R George et al. also observed vaginal discharge as the most common syndrome in their study.[14] Similar results were observed in Choudhry S et al. study.[16]

Incidence of asymptomatic infections is more likely in females. In our study, genital ulcer syndrome was reported in 31% of patients and genital ulcer syndrome in 26%. This is a matter of concern in the context of HIV transmission as genital ulcers are sites of active viremia. In our study, genital discharge syndrome was reported in 31% of patients and genital ulcer syndrome in 26%. This is a matter of concern in the context of HIV transmission as genital ulcers are sites of active viremia.

In conclusion, the syndromic approach has been a major step forward in rationalising and improving management of STI, and its impact on the STI epidemic has been observed in various settings. Our study reveals that viral STIs such as herpes genitalis and condylomataacuminata are on the rise among STI/RTI clinic attendees, same observed in other centres. However, syndromic algorithms have some shortcomings, and they should be periodically revised and adapted to the epidemiological patterns of STI in a particular region.

VI. Conclusion

In conclusion, the syndromic approach has been a major step forward in rationalising and improving management of STI, and its impact on the STI epidemic has been observed in various settings. Our study reveals that viral STIs such as herpes genitalis and condylomataacuminata are on the rise among STI/RTI clinic attendees, same observed in other centres. However, syndromic algorithms have some shortcomings, and they should be periodically revised and adapted to the epidemiological patterns of STI in a particular region.

References


[17]. Sulak PJ. Sexually transmitted diseases. Semin Reprod Med 2003;21:399-413. [PUBMED] [FULLTEXT]


