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AN ASSESSMENT OF OCULAR ETIOLOGICAL FACTORS, COMPLICATIONS AND MANIFESTATION AMONG RESTLESS TOXIC EPIDERMAL NECROLYSIS/ STEVENS-JOHNSON SYNDROME PATIENTS

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Abstract:

Objective: *The objective of the study was to explain the ocular demonstrations of Stevens-Johnson Syndrome/Toxic epidermal necrolysis among restless patients at a tertiary care Hospital.*

Methods: *This research study was conducted at Sir Ganga Ram Hospital, Lahore (February to December 2017), patients were detected with Stevens-Johnson Syndrome/Toxic epidermal necrosis. The information was assembled for these patients regarding age, gender, causes and ocular results. To analyses data statically, SPSS was employed.*

Results: *Total patients selected for this study were 87. The number of male patients was 48 (55.2%). The age bracket for these patients was between 1 month to 84 years. The mean age was (33.2 ± 22.2) years. Idiopathic, non-steroidal inflammatory drugs and anti-epileptics were the common reasons. These reasons were observed in 20 (23%) and 11 (12.6%) respectively. Because of minor conjunctival adhesions, glass Roding was carried out in 16 (18.4%) patients. Moreover, ocular involvement was observed in 45 (51.7%), genital-mucosal involvement was observed in 27 (31.0%) and mucosal participation was observed in 34 (96.6%) patients.*

Conclusion: *There was a common ocular demonstration of different extremity. The most obvious cause was drugs.*

Keywords: *Stevens-Johnson Syndrome, Toxic Epidermal Necrolysis, Ocular Manifestations, Etiology.*

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INTRODUCTION:

Stevens-Johnson Syndrome (SJS) is a disease related to immunology. Severe reside of the skin and participation of mucous membranes from urethral, ocular, nasal, vaginal and nasal indicate this disorder [1]. In 1922, Stevens and Johnson introduced this disorder. The extreme form of SJS is toxic epidermal necrosis (TEN). Approximately 30% of the body area is covered by this disorder [2]. Generally, all age groups and ethnic groups and both genders are affected by SJS and TEN. The annual occurrence of TEN (new cases per million people) is 0.4 to 1.2 and that of SJS is 1.2 to 7.0 [3, 4]. Non-steroidal anti-inflammatory drugs [NSAIDS], antibiotics, malignancies, anticonvulsants, drugs as allopurinol and infection are the main factors that contribute to this disorder. Idiopathy is involved in more than half of the cases. There is no clear information about the origin of this disorder [5, 6]. Even after avoiding the use of drugs, the time duration of the clinic is long. This long study is the foundation of treatment [7]. Majority of the ocular cases occur after or with the participation of skin. In nature, these results are very serious [8]. In South Asian countries along with Pakistan, the research studies regarding ocular demonstration of SJS/TEM among restless patients at a tertiary care Hospital.

PATIENTS & METHODS:

This research study was conducted at Sir Ganga Ram Hospital, Lahore (February to December 2017), patients were detected with Stevens-Johnson Syndrome/Toxic epidermal necrosis. The information was assembled for these patients regarding age, gender, causes of disorder and ocular results. Those patients were not selected for this study who were not selected for this study who were found with a record of previous ocular results. Those patients were not selected for this study who were found with a record of previous ocular issues. The comprehensive information about drugs is assembled. This helped in the evaluation of the frequency of every contributing factor. A proforma was designed. The information on type, demographics, factors causing SJS/TEN and seriousness of ocular complexities of ocular complexities was recorded on this proforma. For quantitative variables such as age, mean and standard deviation (SD) were calculated. To explain categorical variables, percentages and frequencies were measured. To analyse data statistically, SPSS was employed.

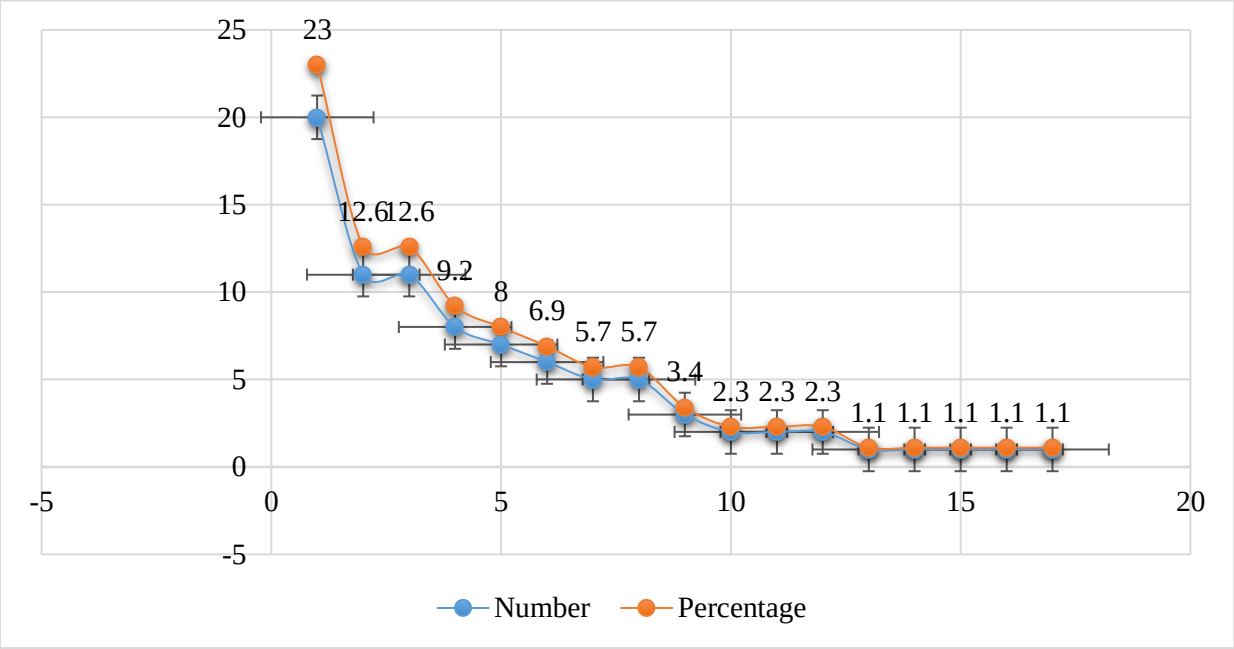
RESULTS:

Total patients enrolled for this study were 87. These patients were admitted to Hospital during the time of study and were suffering from SJS/TEN. The number of male and female patients were suffering from SJS/TEN. The number of male and female patients were 48 (55.2%) and 39 (44.8%) respectively. The age bracket for these patients was between 1 month to 84 years. The mean age was (33.2 ± 2), 22.2 years. The median age of these patients was 36 years. The common factors contribute to this disorder were Idiopathy followed by NSAIDs, anti-epileptic fluoroquinolones, anti-malarial drugs, anti-gout medication and penicillin and cephalosporins. These factors are found with the percentage 20 (23%), 11 (12.6%), 8 (9.2%), 7 (8.0%), 6 (6.9%) and 5 (5.7%) respectively. Because of minor conjunctival adhesions, glass Roding was carried out in 16 (18.4%) patients. Moreover, ocular involvement was observed in 45 (51.7%), genital-mucosal involvement was observed in 27 (31.0%) and mucosal participation was observed in 84 (96.6%) patients. The formation of ulcer was observed in 1 (1.14%). The ulcer was formed due to conjunctival adhesions were found in 2 (2.2%) patients. These patients developed these symptoms ever after the use of lubricants.

Table: Symptoms Stratification

Frequency	Number	Percentage
Unknown	20	23
NSAIDS	11	12.6
Anti-epileptics	11	12.6
Fluoroquinolones	8	9.2
Antimalarial	7	8
Anti-gout medication	6	6.9
Penicillin	5	5.7
Cephalosporin	5	5.7
Metronidazole	3	3.4

Sulpha-containing drug	2	2.3
Anti-tuberculosis drug	2	2.3
Macrolides	2	2.3
Anthelmintic agents	1	1.1
Clarithromycin	1	1.1
Acetaminophen	1	1.1
Tetracycline	1	1.1
Antifungal	1	1.1



NSAIDs: Non-steroidal inflammatory drugs.
SJS: Stevens-Johnson Syndrome
TEN: Toxic Epidermal Necrosis.

DISCUSSION:

The goal of this study was to explain the ocular demonstrations of SJS/TEN among restless patients at a tertiary care Hospital. The ocular demonstrations were observed in about half the case of the study [9]. The ocular related complexities may be serious. The situation that endangered sight, like corneal scars/vascularization, may occur due to these complications. So, regular eye check-up is very necessary for these patients [10]. For the previous many years, management of ocular complexities of SJS remain the same initially, the surface of the eye is lubricated repeatedly. In our study, two patients were found with conjunctival adhesions and eye dryness. The eyes of these patients were lubricated with lubricants. Moreover, to manage conjunctival adhesions, glass Roding was carried out in 1 in 5 patients. There was a difference in the metabolism of drug genetically. Also, the level of attention and care was different in patients. So, at presentation, the seriousness of ocular complexities may not be the same in different racial and ethnic groups [11]. Unluckily, especially in South East Asia, the information regarding aspects of SJS/TEN is not sufficient. There observed long-term participation of the eye. As a result, sight is sometimes endangered [12]. The patient should be aware of possible factors that contribute to the disorder. The most obvious factor of this disorder was drug in most cases in our study. Other factors such as antimalarials, penicillin, NSAIDs, fluoroquinolone's, anti-gout medication, cephalosporin's anti-epileptics also contribute to this

disorder. In the present, one-four of the cases could not find with particular an aetiology. 60% of SJS cases are due to drugs, as illustrated by many research studies [11, 13].

CONCLUSION:

The study concluded that there were common ocular demonstrations of different extremity. The most obvious cause was drugs in our study. It can lead to long-term complexities. To decrease these complexities, demonstration in time. In order to understand and highlight possible factors that contribute to this disorder, it is important to organize more research studies.

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