ACTIVE TRACHOMA IN AN OUT PATIENT CLINIC

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ABSTRACT

Objective: *To evaluate the presentation and outcome of active trachoma patients presenting to the Ophthalmology out patient clinic.*

Material and Methods: *The study was conducted at Saidu Teaching Hospital, Saidu Sharif, Swat from 1st January 2000 to 31st December 2001. All patients attending the outpatient department of Ophthalmology unit were examined and screened for active trachoma (trachoma follicular and trachoma intense) presentation and outcome. The medical treatment advised was oral Azithromycin 1 gram as a single dose and Tetracycline eye ointment twice a day for 6 weeks.*

Results: *Out of 20193 OPD patients, patients with active trachoma were 52 (0.26%) ranging in age from 9 to 65 years. Trachoma was more common in females (90.4%) than males (9.6%). Forty-one (79%) cases were bilateral and 11 (21%) were unilateral. 42 cases presented with history of sore eyes and mucopurulent discharge for one month or more. Complications observed were conjunctival scaring in 6 (11.54%) cases, trichiasis in 5 (9.61%) cases and corneal opacity in 3 (5.77%) cases. All the patients came for the 1st follow up visit after 4 weeks (100%) and seven (13.46%) patients had come for 2nd follow up visit after one year, with no signs or symptoms of active trachoma indicating 100% successful medical treatment.*

Conclusions: *Bilateral sore eyes and mucopurulent discharge are the common presentations of Trachoma. Complications like conjunctival scaring, trichiasis and corneal opacity are still seen. Single dose treatment with oral Azithromycin is effective.*

Key Words: *Active Trachoma; Trachoma Follicular, Trachoma Intense, Azithromycin; Out patient clinic.*

INTRODUCTION

Trachoma is the world's leading cause of infectious blindness. [1] Eight million people worldwide are visually impaired as a result of trachoma and approximately 84 million suffer from active infection, causing an estimated 2.9 billion dollars loss in revenue annually. It mainly affects [2] children and young adults. The organism Chlamydia trachomatis affects many tissues in the body, but is more commonly responsible for genital tract and conjunctival infections. Finger to eye, sexual contact, fomites and flies are the main mechanisms for the transfer of infection to the eye. The chlamydial conjunctivitis passes through the stages of follicular, intense inflammation, tarsal scaring, trichiasis and corneal opacification, ultimately leading to blindness.

Previously sulpha drugs, chloramphenicol, tetracyclines and erythromycin were used for the treatment of trachoma, topically and systemic for weeks and months. But single oral dose of Azithromycin has revolutionized the treatment of the disease. [3] Nevertheless it is better to prevent it by simple good personal and community hygiene, which is only possible by mass awareness in the nation as a whole. WHO launched programme, GET 2020, adopts the SAFE strategy, a comprehensive set of control measures, i.e., Surgery for entropion, Antibiotics for infectious trachoma, Facial cleanliness to reduce transmission, Environmental improvement such as control of the disease-spreading flies and access to clean water. [4]

The aim of the study was to evaluate the presentation and outcome of active trachoma patients presenting to the Ophthalmology out patient clinic and efficacy of single dose of oral Azithromycin in treatment of such patients.

QUARTERLY DISTRIBUTION OF TRACHOMA CASES

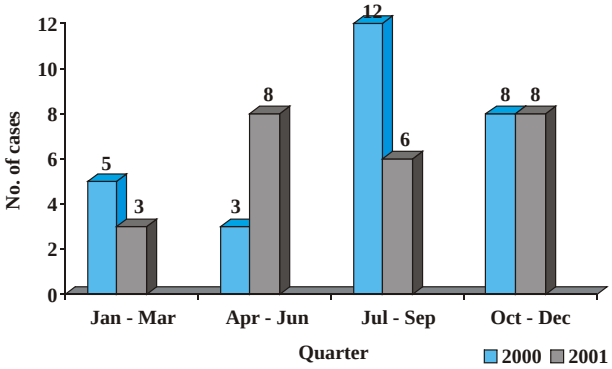

Figure No. 1

MATERIAL AND METHODS

This study was conducted at Ophthalmology Department of Saidu Teaching Hospital, Saidu Sharif, Swat from 1 January 2000 to 31st December 2001 (2 years). All patients attending the out patient department of Ophthalmology unit were examined and screened for trachoma; some young children were examined under general anesthesia.

Criteria for the diagnosis of trachoma were one or more of these points:

- History of sore eyes with mucopurulent discharge for more than one month.
- No response to routine topical antibiotics already used.
- Follicles, 5 or more in number of 5 mm or more in size on the upper tarsal plate.
- Enlargement of pre-auricular and/ or sub-mandibular lymph nodes.

For confirmation of history-based diagnosis scrapings from conjunctiva was taken from patients and sent to pathologist for detection of Halbersteadter Prowazek inclusion bodies in the conjunctival epithelium. The medical treatment advised was oral Azithromycin 1 gram as a single dose and Tetracycline eye ointment twice a day for 6 weeks. Patient was given brief information about the communicability of the disease and how to prevent the spread of the disease to other family members and community. They were asked to come back for 1 st follow up visit after 4 weeks and then 2 nd follow up visit after one year.

RESULTS

A total of 20193 patients were examined in the out patient department of Ophthalmology unit at Saidu Teaching Hospital, Saidu Sharif, Swat from 1 January 2000 to 31 December 2001 (2 years). Using the clinical criteria for diagnosis of trachoma, a total number of patients having active trachoma were 52 (0.26%).

Quarterly distribution of trachoma cases is given in Figure No. 1. Age range was nine years to 65 years. Age and sex distribution is given in Figure No. 2. Some of younger patients of less than nine years had to be examined under general anesthesia. Forty-seven (90.4%) cases were female and 5 (9.6%) cases were male; with male to female ratio of 1: 9.4 thus showing significantly higher occurrence in females as compared to males. The disease was bilateral in 41 (79%) cases and unilateral in 11 (21%) cases.

The presentation of the patients was; 42 cases with history of sore eyes and mucopurulent discharge for one month or more, 45 patients with no response to routine topical antibiotics use, 49 patients had 5 or more than five follicle of 5 mm or more in size on the upper tarsal plate and enlargement of pre-auricular and/or sub-mandibular lymph nodes was present in 37 patients. A significant number of patients had two or more of the above features.

Although we were interested in the active stages of trachoma (trachoma follicular and trachoma intense) which were 52 cases, six (11.54%) cases of trachoma cicatricial (TS), five (9.61%) cases of trachoma trichiasis (TT) and three (5.77%) cases of trachoma opacity (TO) were also detected as shown in Table No. I (one patient had only scaring of the tarsal conjunctiva, five patients had tarsal scaring with trichiasis and three patients had trichiasis with corneal opacity). Two specimens of conjunctival scrapings were sent to pathologist for the confirmation of diagnosis and both of them were positive for Halbersteadter Prowazek inclusion bodies supporting our clinical diagnosis. All the patients came for the1 follow st up visit after 4 weeks (100%) and seven (13.46%) patients had come for 2 nd follow up visit after one year, with no signs or symptoms of active trachoma indicating 100% successful medical treatment.

AGE AND SEX DISTRIBUTION

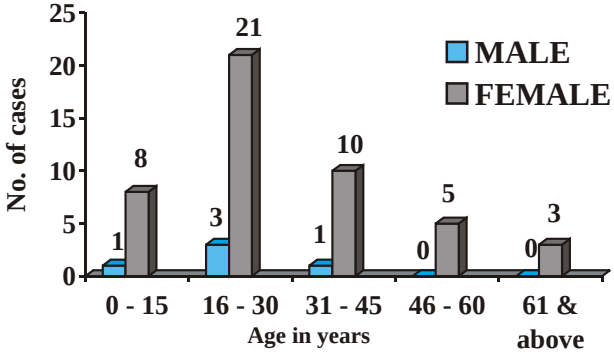

Figure No.2

DISCUSSION

Trachoma is the second commonest cause of blindness worldwide, which blinds 4.19 million individuals. Developing countries with lower per capita income have higher prevalence of trachoma. The prevalence of trachoma is 3-25% in various studies. [7,8] Our study was not population-based study but rather done on patients attending eye out patient clinic, the frequency of trachoma in it was 0.26%. In one study from Ethiopia corneal opacity from trachoma was responsible for 20.6% of all blindness and 10.4% of low vision. [8] It mainly affects children and young adults. The prevalence of active trachoma (TF and TI) was estimated to be 34.9% in children less than 10 years of age. A study [9] of primary school showed 15.5% children being affected by trachoma in a rural area of Tanzania. [10] In our study 84.6% patients were below 45 years of age, but only 17.3% patients were below 15 years of age. This low number of cases in children age group is due to the fact that most of the under 10 years of age children required general anesthesia for proper examination and diagnosis for which the parents were not willing. 78.85% of our cases were having bilateral involvement and 90.38% cases were female. In a study from Brazil the overall prevalence was 5.9%, 5.1% being of follicular trachoma (TF), 0.3% of intense trachoma (TI) and 0.5% of cicatricial trachoma (TS). [11] In our study 11.54% cases had TS, 9.61% had TT and 5.77% cases had TO in addition to active trachoma. No significant seasonal variation in presentation of patients was observed in our study.

Azithromycin single systemic dose is more effective than topical Tetracycline eye ointment twice daily for 6 weeks. [12,13] Our study results also support single systemic dose of Azithromycin, with 100% success rate. Other studies have shown that mass treatment of children is slightly more effective than targeted treatment with Azithromycin. [14] Trained community health volunteers have a potential role in identifying active trachoma and distributing Azithromycin. [15]

There is fall in the disease occurrence from 65.7% in 1959 to 2.4% in 1996 as a result of improved sanitation, water supply, education and access to health care facilities. [16] In one study with the improvement of public hygiene the prevalence of active trachoma decreased from 6.2% in 1984 to 2.6% in 1994 in Saudi Arabia. [17] So it is better to prevent it by simple good personal and community hygiene, which is only possible by mass awareness in the nation as a whole. WHO SAFE strategy of comprehensive set of control measures needs to be implemented with the help of trained community health volunteers.

STAGES OF TRACHOMA

Stage	No. of Cases	% age
TF (Trachoma Follicular)*	52	100%
TI (Trachoma Intense)*	52	100%
TS (Trachoma Cicatricial)	06	11.54%
TT (Trachoma Trichiasis)	05	09.61%
TO (Trachoma Opacity)	03	05.77%

** Active stages of trachoma*

Table 1

CONCLUSIONS

- Trachoma is not uncommon ocular disease in this part of the country.
- It is more common in females than males.
- It has usually bilateral presentation and sore eyes and mucopurulent discharge are the common presentations.
- Common complications included conjunctival scaring, trichiasis and corneal opacity.
- Single dose treatment with oral Azithromycin is effective.

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