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GLYCYRRHIZA GLABRA IN ACUTE CONJUNCTIVITIS

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ABSTRACT: *Conjunctivitis and its treatment have been widely described in ancient Indian medicine, 50 cases of Conjunctivitis (Acute) were clinically studied with Glycyrrhiza glabra along with comparative approach of Chlorophenicol. 25 cases studied with Glycyrrhiza glabra have shown encouraging results from which the author concludes that, the drug has got a definite role in Conjunctivitis.*

INTRODUCTION

Conjunctivitis is a common external ocular bacterial infection and is more common in the unhygienic and poverty striken areas. This disease is quite elaborately mentioned in Indian Medicine (CARAKA[4], SUSRUTA[7], AND SRINIVAS[6]) and considered as OUPASARGIKA (Infectious disease).

Modern Medicine can offer a number of antibiotics for Conjunctivitis, but sometimes they are injurious to the ocular tissues and may produce resistant bacteria in the long run.

Indian Medicine has described widely about ocular diseases and their treatment in its treatise. A small clinical comparative study was carried out with Glyzerrhaizia glabra a highly claimed drug in Conjunctivitis, in the department of Opthalmology, Government Nizamia General Hospital, Hyderabad.

Glycyrrhiza glabra has been prescribed by all ancient books for Conjunctivitis. RAI (1975) also scientifically studied and mentioned that it has got definite role in Conjunctivitis especially in inflammatory origin. G – glabra was known to the Pharmacists and used by Chinese, Greeks, Europeans and Egyptians. Its dried roots are available in Indian Market and also available in Peshawar, China, Burma etc. It is called 'YASTTMADHU' in Sanskrit.

MATERIALS AND METHODS

Fifty patients of Conjunctivitis were selected for this clinical study. All the patients were screened on the basis of history and clinical appearance. Uniocular and Binocular cases were included in the study. Corneal and other intraocular involvements were excluded from this study.

Out of fifty patients 11 were males, 14 females 25 children (Table 1). These patients were divided into two groups for comparative study. First group was consisting of 25 cases under Glycyrrhiza

glabra eye drops and 25 cases under Chloramphenicol Eye drops. Chloramphenicol was selected because of its first choice in superficial ocular infections[1] and lesser sensitivity than other drugs[4].

TABLE – 1

Showing the cases according sexwise

Sl. No.	Sex	No. of cases
1	Male	11
2	Female	14
3	Children	25
Total		**50**

The Glycyrrhaizia glabra dry root made into coarse powder was taken for water extraction in percolator method. The powder was taken in percolator and waterwas added till it immersed. After 24 hours the extract was taken out in a flask from the percolator. Then it was filtered and evaporation on water bath was done up to drying. The drugmass obtained was semisolid and blackish in colour. Then the extract was mixed with distilled water to make a 5% solution (5gms. Extract and 100 ml. of distilled water). The prepared solution was filled in 5 ml. bottles to dispense to the patients (procedure adopted according to RAI 1975). The drug was prepared under strict aseptic conditions.

All the cases were selected purely on the basis of clinical signs, symptoms and history. The patients came to the department with the below signs and symptoms. Discharge (44) Itching (42) Photophobia (40) Foreign body sensation (48) Pain (35) Burning sensation (40) Palpebral congestion (41) Bulbar congestion (47) Matting of the lashes and lids (40) and swollen lids in (20) cases (Table 2).

TABLE – 2

Showing the signs and symptoms in number of cases

Sl. No.	Signs / Symptoms	No. of cases
1	Discharge	44
2	Itching	42
3	Photo phobia	40

4	Foreign body sensation	48
5	Pain	35
6	Burning sensation	40
7	Palpebral Congestion	41
8	Bulbar Congestion	47
9	Matting of the lashes and lids	40
10	Swollen lids	20

All the patients were carefully examined before selecting the case for clinical study, and Eye drops of Glycyrrhiza glabra (5 ml) and Chloramphenicol drops were distributed to each patient and they were asked to instill themselves six times a day and also to maintain strict hygienic conditions to avoid the spread of infection. All the 50 patients were examined in the department daily to assess the clinical findings.

OBSERVATION AND RESULTS

Twenty five patients who received 'Glycyrrhiza glabra' drops showed subsidence of their acute clinical signs and symptoms from 4^{th} day onwards. Complete disappearance of the symptoms took 5 to 7 days. Only 3 – 4 cases did not respond to these drops. Itching was the predominant symptom started subsiding earlier than other ocular findings, then the discharge, congestion etc. In one case (Age 12 years) the swollen lids and Itching subsided on the second day.

Twenty five patients who received established Chloramphenicol drops showed good results. The duration was 4 to 7 days. All twenty five responded and gave good results.

DISCUSSION

Acute Conjunctivitis is a major ocular external infection in tropical countries though it may not be a very serious disease. But it gives much discomfort and sometimes leads to partial blindness or blindness due to corneal involvement. In the modern medicine a quite number of drugs are available and they are effective also; but some times it may produce resistance and ocular damage also.

The Glycyrrhiza glabra is widely used in Indian Medicine and its cost is quite cheap. It consists of Glycyrrhizin (Arch Parma – Berlin), Glycyrrhizic Acid (Bio Chemi Z) Glycyrrhizic Acid (Joupharm). SOCJap Chemical Abstra) and also cartico – steroid like substance 3 : 8. It is demulcent, tonic and mildly laxative.

Because of its qualities like cheaper cost, claimed references and RAI'S work on Conjunctivitis, it was selected for study in Conjunctivitis. Though the number of cases

were less the results under the group of Glycyrrhiza glabra were encouraging which showed brining down of the acute symptoms and complete relief of the disease. In this clinical study the prominent symptoms of Itching, Congestion and swelling of the lids subsided faster than those in Chloramphenicol group. All 22 cases were relieved from symptoms before 7th day, but only 3 cases did not respond.

This clinical study concludes that Glycyrrhiza glabra definitely has effect in acute Conjunctivitis's (Inflammatory) by its presence of cortico – steroid like substance and probably improves the Conjunctival resistance by its tonic nature.

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