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Original Research Article

A study on clinical evaluation of chronic dacryocystitis

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ABSTRACT

Background: Chronic dacryocystitis is an unpleasant disease. It is a common condition presenting with watering from the eye. Usually there is a block at the nasolacrimal duct where it opens into the inferior meatus. The study was done to do a clinical analysis of the cases of chronic dacryocystitis.
Methods: 51 cases of clinically diagnosed chronic dacryocystitis were taken and, clinical analysis of the cases regarding age, sex, presenting symptom, nature of discharge was done. LPI was done in all the cases. DCR or DCY was done as treatment.
Results: Common age of presentation was third decade or fourth decade. Female were worse sufferer. Discharge from eye was present in all the cases.
Conclusions: A female in third or fourth decade having discharge from eye since years, chronic daryocystitis is to be ruled out. DCR is an effective method of treatment.

Keywords: Chronic dacryocystitis, Dacryocystorhynostomy, Dacryocystectomy, Fistulectomy, Lacrimal sac, Lacrimal fistula, Mucocele, Mucopurulent discharge, Nasolacrimal duct, Rhinosporidosis

INTRODUCTION

Chronic dacryocystitis is an unpleasant disease. It is a common condition presenting with watering from the eye. Usually there is a block at the nasolacrimal duct where it opens into the inferior meatus.[1]

Consequently, there is stasis in the lacrimal sac. Stasis later give rise to infection leading to mucopurulent or purulent discharge from the eye. In these cases, another opening is to be made from lacrimal sac to nasal mucosa after making an opening in lacrimal fossa.[2] A small test like lacrimal passage irrigation is enough to make the diagnosis.

The watering and discharge are troublesome and it has little tendency to resolve. A study was conducted in MKCG Medical college to know the various modes of presentation, age and sex distribution, treatment and complications.

METHODS

51 cases of clinically established cases of chronic dacryocystitis, who attended and treated in MKCG Medical College during the period of January 2014 to December 2016 were selected for this study. Lacrimal passage irrigation was done in all the cases. Obstruction with regurgitation was found. All age sex and socioeconomic status were included in this study.

Detail history was taken. Patients were investigated for HB%, DC, TLC, FBS, HIV, HbsAg. Clinical analysis was done. Dacryocystorhynostomy was done for treatment. The case where DCR was not possible dacryocystectomy was done.

RESULTS

The following observations were made in the study.

Table 1: Age distribution.

Age group in years	No. of cases	Percentage
0 - 10	0	0
11 - 20	4	8
21 - 30	12	24
31 - 40	16	31
41 - 50	16	31
51 - 60	3	6
61 - 70	0	0

Table 1 showed age distribution of the condition. Highest number of cases (16) was seen in the age group of 30-40 and 40-50 years of age. During the age of 20-30 also 12 cases were seen.

Table 2: Sex distribution.

Sex	No. of cases	Percentage
Female	35	69
Male	16	31

Out of 51 cases 35 are female and16 are male. They are in the ratio of 2.2: 1

Table 2 showed sex distribution. Female were more frequently affected 69 percent.

Table 3: Social statuses of females.

Females	No. of cases	Percentage
House wife	22	63
Farmer	7	20
Service holder	2	6
Shop keeper	4	11

Most of the females are housewives.

Table 3 showed social status. It was more common in lower socioeconomic group.

Table 4: Socioeconomic statuses.

Class	No. of cases	Percentage
Lower	45	88
Upper	6	12

Most of the cases (88 %) are from lower socioeconomic status.

Table 4 showed that it was more common among housewives.

Table 5 showed presenting symptoms. Watering was present in all the cases. 2 cases had discharge over the sac. 7 cases had swelling over the sac area. Bleeding from nose was present in 2 cases.

Table 5: Presenting symptom.

Presenting symptoms	No. of cases	Percentage
watering	51	100
Mucopurulent discharge	10	20
Swelling over sac area	7	12
Purulent discharge	5	10
Discharge over sac	2	4
Bleeding from nose	2	4

Watering from the punctum to start with was present all the (51) cases. Mucopurulent discharge was present in 10 cases. Swelling over lacrimal sac area (mucocele) was present in 5 cases. LPI showed discharge from sac area (lacrimal fistula) in 2 cases. Out of the cases of first decade (4), 2 cases had history of bleeding from nose. All the 4 cases had history of pond bath.

All the cases had discharge from upper punctum. 2 cases had discharge from fistula in addition to discharge from sac.

Table 6: Result of LPI.

Regurgitation from upper punctum	No. of cases	Percentage
Clear fluid	34	66
Mucopurulent discharge	10	20
Purulent discharge	5	9
Discharge from sac in fistula	2	5

Table 7: Duration of presenting symptoms.

Presenting symptoms		
6 months	3	6%
2 years	45	88%
5 years	3	6%

2 cases had history of acute dacryocystitis with spontaneous rupture, giving rise to fistula. 3 cases had history of diffuse swelling around the lacrimal sac and orbit area. In 45 cases DCR was done. 5 cases DCY was done. 2 cases fistulectomy was added. As shown in Table 8.

Table 8: Treatments given.

Treatment given	No. of cases	Percentage
DCR	45	88
DCY	5	10
DCR with fistulectomy	2	4

DCR was done in 45 cases. In all the 4 cases of first decade DCY was done. After opening the sac there was profuse bleeding and rhinosporidosis mass was noticed. 1 case of adult had a fibrosed sac adequate sac flap couldn't be taken. DCY was done.

Table 9: Anaesthesia for surgery.

Anaesthesia	No. of cases	Percentage
LA	47	92
GA	4	8

Children were operated under GA

In 47 cases surgery was done under LA. In children surgery was done under GA, as shown in Table 9.

Figure 1: A case of chronic Dacryocystitis presenting with mucopurulent discharge since 2 years.

Stitches were removed after 7 days. Follow up was done after 15 days, 2 months, 6 months and 1 year. All the cases were doing well except one case of DCR where there was mucopurulent discharge. DCY could solve the problem.

Figure 2: DCR done.

DISCUSSION

Chronic dacryocystitis is a commonly encountered infection. It is more common in third decade and fourth decade. Females are more commonly affected.[1,2]

Lacrimal apparatus contains lacrimal gland, punctum, canaliculi, lacrimal sac, and nasolacrimal duct. Lacrimal apparatus is concerned with formation and drainage of tears, which keep the cornea moist, protect against airborne pathogens and foreign bodies.[3,4] In case of chronic dacryocystitis there is obstruction of the nasolacrimal duct followed by stasis in the lacrimal sac causing watering and discharge from eye.[5] On LPI there is discharge of watery, pus or mucopurulent discharge from the upper punctum.

Chronic dacryocystitis is more common in female with low socioeconomic status presenting with discharge from the eye for a long period of time. In the present study 5 cases had painless swelling from lacrimal sac area suggesting mucocele. In children 2 cases had swelling over lacrimal sac area, with doughy consistency. Clinically this suggested rhinosporidosis. All the children had history of pond bath. In children, all the cases were found to be rhinosporidosis.

CONCLUSION

Discharge from the eye for a long period of time may be watery or mucoid or mucopurulent or purulent arouse the suspension of chronic dacryocystitis. Adult females are commonly affected. DCR is the treatment of choice. In case of rhinosporidosis, dacryocystectomy is affective. In the presence of fistula in addition to DCR fistulectomy is the treatment of choice. The complications following surgery are minimum.

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