

Original article:

Study of complaints in patients of chronic dacryocystitis in rural population

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Abstract:

Introduction: Dacryocystitis can be further classified as congenital dacryocystitis and acquired dacryocystitis. Congenital dacryocystitis is almost always chronic, while acquired dacryocystitis may be acute or chronic. Chronic dacryocystitis is more common. Dacryocystitis affects both sexes but more commonly seen in females over 40 years of age². It is more common in people from lower socioeconomic status

Materials and methods: The present study was conducted in Department of Ophthalmology, Rural Medical College, Loni. Patients attending ophthalmology outpatient department at Rural Medical College, Loni, for the symptom of epiphora and diagnosed as primary acquired nasolacrimal duct obstruction or chronic dacryocystitis. All symptomatic epiphora cases diagnosed for primary acquired nasolacrimal duct obstruction or chronic dacryocystitis.

Results : By applying Z test of difference between two proportions there is a significant difference between proportions of nasal pathology like gross left side DNS, gross right side DNS, and normal group when group A was compared to group B (p<0.05). Out of 30 cases in group B, septoplasty was done in 5 cases (16.66%). 2 cases of gross left side DNS, 2 cases of gross right side DNS and 1 case of mild left side DNS underwent septoplasty surgery before endonasal dacryocystorhinostomy surgery.

Conclusion: In our study, epiphora with discharge was the commonest symptom.

Keywords : Dacryocystitis , Rural population

INTRODUCTION

Dacryocystitis can be further classified as congenital dacryocystitis and acquired dacryocystitis. Congenital dacryocystitis is almost always chronic, while acquired dacryocystitis may be acute or chronic. Chronic dacryocystitis is more common. Dacryocystitis affects both sexes but more commonly seen in females over 40 years of age². It is more common in people from lower socioeconomic status.

Cardinal symptoms of chronic dacryocystitis are watering and discharge from the eye. This has got little tendency to resolve completely and has to be dealt properly. Otherwise, this leads to complications like acute dacryocystitis, corneal ulcer and chronic conjunctivitis. ²Acute dacryocystitis further can cause complications like lacrimal abscess, lacrimal fistula, orbital cellulitis, osteomyelitis and cavernous sinus thrombosis which can be life threatening. Its treatment aims at creating a new passage for drainage of tears from conjunctival sac into the nasal cavity,

bypassing the blocked nasolacrimal duct. ³With this background present study was planned to study of complaint in patients of chronic dacryocystitis in rural population.

MATERIALS AND METHODS

The present study was conducted in Department of Ophthalmology, Rural Medical College, Loni.

Source of data:

Patients attending ophthalmology outpatient department at Rural Medical College, Loni, for the symptom of epiphora and diagnosed as primary acquired nasolacrimal duct obstruction or chronic dacryocystitis.

Inclusion criteria:

All symptomatic epiphora cases diagnosed for primary acquired nasolacrimal duct obstruction or chronic dacryocystitis.

Exclusion criteria:

Following patients were excluded from study

- 1) Canalicular and punctal obstruction
- 2) Failed cases of dacryocystorhinostomy
- 3) Ectropion/ entropion/ lower lid laxity
- 4) Post traumatic bone deformity of lacrimal region

- 5) History of radiation therapy of lacrimal region
- 6) History of sino nasal malignancy and granulomatous conditions
- 7) Atrophic rhinitis

Sample size:

The study included 60 cases that were diagnosed as nasolacrimal duct obstruction or chronic dacryocystitis and who were fulfilling inclusion criteria during the study period.

OBSERVATIONS AND RESULTS

In the present study, total 60 cases comprising 30 cases in the external dacryocystorhinostomy (group A) and 30 cases in endonasal dacryocystorhinostomy (group B) were involved who underwent corresponding surgeries, following observations were made:

3) Presenting symptoms:

In our study, epiphora with discharge was the commonest symptom and was present in 22 cases (36.67%) followed by discharge in 17 cases (28.33%) and only epiphora in 15 cases (25%).

Table No.3: Symptoms in Group A and Group B:

Symptoms	Group A(n=30)	Group B(n=30)	Total
	No. (%)	No. (%)	No. (%)
Epiphora	5(16.67%)	10(33.33%)	15(25%)
Discharge	10(33.33%)	7(23.33%)	17(28.33%)
Discharge+ Epiphora	11(36.67%)	11(36.67%)	22(36.67%)
Swelling at medial canthus (SAMC) With epiphora	4(13.33%)	2(6.67%)	6(10%)
Total	30	30	60

Value of $\chi^2 = 9.98$, d.f.=3, significant, $p < 0.05$

By applying Chi-square test there is a significant association between symptoms of group A and group B ($p < 0.05$). By applying Z test of difference between two proportions there is a significant difference between proportions of symptoms, epiphora, discharge, and SAMC with epiphora in group A

compared to group B ($p < 0.05$). Symptoms of discharge (33.33%) and SAMC with epiphora (13.33%) are higher in group A as compared to group B and symptom of epiphora (33.33%) is more in group B as compared to group A.

Table No.4: Nasal Pathology in Group A and Group B:

ENT examination	Group A(n=30)	Group B(n=30)	Total
	No. (%)	No. (%)	No. (%)
Gross left side DNS	0	2(6.66%)	2(3.33%)
Gross right side DNS	0	2(6.66%)	2(3.33%)
Middle Turbinate Hypertrophy	1(3.34%)	1(3.34%)	2(3.33%)
Mild left side DNS	3(10%)	3(10%)	6(10%)
Mild right side DNS	2(6.66%)	2(6.66%)	4(6.67%)
Normal	24(80%)	20(66.68%)	44(73.33%)
Total	30	30	60

Value of $\chi^2 = 14.55$, d.f.=5, significant, $p < 0.05$

By applying Chi-square test there is a significant association between the nasal pathology of group A and group B ($p < 0.05$).

By applying Z test of difference between two proportions there is a significant difference between proportions of nasal pathology like gross left side DNS, gross right side DNS, and normal group when group A was compared to group B ($p < 0.05$).

Out of 30 cases in group B, septoplasty was done in 5 cases (16.66%). 2 cases of gross left side DNS, 2 cases of gross right side DNS and 1 case of mild left side DNS underwent septoplasty surgery before endonasal dacryocystorhinostomy surgery.

DISCUSSION

In our study of 60 cases, 32 cases (53.33%) were operated for left sided obstruction and 28 cases (46.66%) were operated on the right side. A study by **Hartikainen et al**⁴ showed 30 patients (45%) with right sided symptomatology and 34 patients (55%) with left sided symptomatology. Our study correlates

well with the Hartikainen et al study with respect to laterality of surgery, but as such this disease has no special predilection to the laterality as per the available literature. In our study, epiphora with discharge was the commonest symptom present in 22 cases (36.67%) followed by the presence of discharge in 17 cases (28.33%) and only epiphora in 15 cases

(25%). **Tarbet et al**⁵ reported the incidence of epiphora in 86% and discharge in 3% cases.

In our study epiphora with discharge was the commonest complaint by the patients because many patients belonged to rural areas and they often came late for the treatment.

In our study, the associated nasal pathologies were deviated nasal septum and hypertrophied inferior turbinate.

Mild DNS were noted in 10 cases (16.66%) while gross DNS was present in 4 cases (6.66%) and in 2 cases (3.33%) we encountered inferior turbinate hypertrophy.

In group A, DNS cases were left alone because they were mild. In group B, septoplasty was done in 5 cases (16.66%), 2 cases of gross left sided DNS, 2 cases of gross right sided DNS and 1 case of mild left sided DNS underwent septoplasty surgery before endonasal dacryocysto-rhinostomy surgery.

In **Tsirbas et al**⁶ study, 11 cases (22%) out of 50 cases underwent septoplasty and endonasal DCR surgery at the same sitting. Our study correlates well with the study done by Tsirbas et al.

Early studies have proven that ocular origin for inflammation of lacrimal system is less common than a nasal origin. The most common causes being ethmoidal sinusitis, maxillary sinusitis, hypertrophied turbinate, high septal deviation and acute infection in the nasal cavity⁸.

Weidenbecher et al⁷ in their study detected 72% of septal deviation, 32% of maxillary sinusitis and 20% hyperplasia of the turbinates. Our study correlates with the study done by Weidenbecher et al however we found low incidence of septal deviation (23.33%) and turbinate hypertrophy (3.33%).

CONCLUSION

In our study, epiphora with discharge was the commonest symptom.

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