

**COMPLICATIONS IN ENDO –DCR**Arun Magendran<sup>1</sup>, M. Vijayakumar<sup>2</sup>**HOW TO CITE THIS ARTICLE:**

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**ABSTRACT:** study has been performed in 50 cases of chronic dacryocystitis to know the common complications of endoscopic DCR for a period of follow up for 6 months.

**KEYWORDS:** Dacryocystitis, Endoscopy, DCR, Complications.

**INTRODUCTION:** Endoscopic DCR is a common procedure at present for chronic Dacryocystitis. Common complaint of patient is discomfort and pain. The study was done to know the common complications in Endo-DCR.

**MATERIALS & METHODS:** 50 cases of dacryocystitis were included in the study over a period of 2 years, all patients were subjected to complete ENT & Ophthalmic examination, and patients were selected on the basis of clinical history, lacrimal duct canalization and regurgitation of fluid, mucous or pus on applying pressure over lacrimal sac.

**OPERATIVE TECHNIQUE:** Nasal cavity was packed with 4% xylocaine with adrenaline, prior to surgery; infiltration given with 2% xylocaine with adrenaline, 1X1cm incision was given anterior to uncinata process and flap elevated, lacrimal bone overlying the sac was removed with Kerrison's punch forceps, lacrimal sac visualized and medial wall of sac exposed and the same was incised, mucopurulent or purulent discharge came out and medial wall of sac was removed. Lacrimal sac syringing was done with normal saline and free flow of fluid was observed endoscopically, nose was packed with Vaseline gauze and put on prophylactic antibiotics, patient was asked to come for review weekly once for first month and monthly once for 6 months.

**OBSERVATION & RESULTS:** In our study, patients of age from 20 to 70 years were taken, Female preponderance was noted, 30% were males compared to 70% female. In intra operative complications 30% i.e., (15 cases) had moderate bleeding and 10% i.e., (5 cases) there was difficulty in doing bony window. Post-operative complications include synechiae 10% (5 cases) and granulation in 10% (5 cases) in our study 40% i.e., (20 cases) had intra operative complications (Moderate bleeding & difficulty in doing bony window & post-op complications of 20% i.e., (10 cases) of synechiae and granulation was seen.

**DISCUSSION:** The study was done for 2 years during which 50 cases were studied & they underwent Endo-DCR.

Chronic dacryocystitis was more common in adults & highest incidence was seen in 3<sup>rd</sup> & 4<sup>th</sup> decades. In present study patients were aged between 20 to 70 years of age.

HB Whittet et al (1993),<sup>1</sup> observed the age of the patients, which ranged from 14-80 years. In a study conducted by Cookeser et al (2000),<sup>2</sup> age range was from 4 to 76 years.

Female preponderance was noticed in 35 patients (70%), only 15 were males (30%).

According to Sprekelsen et al (1996),<sup>3</sup> 80% patients were females & 20% were males.

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The striking predilection may be due to narrow lumen of bony lacrimal canal and endocrine factors. Gossel S.A et al,<sup>4</sup> in their study of axial maxilla facial CT scans showed, women of having a smaller bony diameter at the level of lower fossa & middle nasolacrimal duct compared to men.

Our study showed 15 cases (30%) had moderate bleeding, haemostasis was attained with gauze soaked in 4% xylocaine with adrenaline.

In a study conducted by Jounko et al.,<sup>5</sup> 1 patients required anterior nasal tamponade after resection of anterior end of middle turbinate.

In 8% (4 cases), there was difficulty in doing bony window.

In our study the post-operative complications we came across were synechiae, granulations & rhinostomy obstruction.

3 patients (6%) developed synechiae between middle turbinate & sac area. They were released a week later under endoscopic guidance.

According to Sporkelsen,<sup>3</sup> synechiae occurred in 22% of cases & most of them were minor & did not interfere with final results. Granulation at the site of rhinostomy was seen in 10% i.e., (5 cases). Sporkelsen,<sup>3</sup> reported granulation tissue formation in 6.6% of cases.

Crusting was found at the site of rhinostomy in 5 patients. It was cleared in 1<sup>st</sup> week endoscopically & did not interfere with final results.

According to Hartikainen et al.,<sup>6</sup> seven patients had obstruction at rhinostomy site.

Success of the procedure was defined as a patient lacrimal drainage system at the end of 6 months. In our study we had success in 90% (45 cases) & failure in 20% (10 cases).

The success rate of endoscopic DCR has been reported between 82% to 86% (Jokinen et al, 1974; Rice DH et al, 1990; Shunshin et al 1998).<sup>7</sup>

**CONCLUSION:** Endo-DCR is simple and safe procedure, avoids scar, injury to medial palpebral ligament and angular vessels. Lacrimal pump mechanism is not disturbed as orbicularis muscle is not incised. 20 cases had intra operative and 10 cases had post-operative complications, but these were minor complications and did not interfere with success rate.

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