

Introduction

Epiphora, an overflowing of tears, may result from increased tear secretion, poor apposition of the lacrimal puncta, and disruption or obstruction of the lacrimal drainage system. Causes of epiphora include idiopathic, infectious, traumatic, congenital, and neoplastic processes **(Mickelson et al; 1997)**

Epiphora is an annoying symptom, embarrassing the patient both socially and functionally. The two widely accepted treatment modalities of epiphora due to anatomical blockage resulting from obstruction of the nasolacrimal ducts are external and endoscopic dacryocystorhinostomy (DCR). **(Cokkeser et al; 2000)**

Stenosis of the nasolacrimal drainage system is encountered in clinical practice both by ophthalmologists and otorhinolaryngologists. Current technology, with the introduction of endoscopes and imaging investigations, dedicated to the nasolacrimal system, allows the site of the obstruction to be detected and to perform micro-invasive surgery, respecting the anatomical structures. **(Muscatello et al;2005)**

Dacrycystorhinostomy (DCR) is a procedure performed to drain the lacrimal sac in cases of nasolacrimal duct obstruction or in chronic dacryocystitis. It can be performed externally or endoscopically.

(Harvinder et al; 2008)

Endoscopic dacryocystorhinostomy (DCR) is indicated when medical therapy has failed to achieve resolution of the disease. Since 1904, the surgical management accepted for this disease was the external approach.

(Muscatello et al; 2005)

The first reference to the endonasal lacrimal sac approach was made by Caldwell in 1893 and the fenestration of the lacrimal sac as we perform it currently is based on the techniques described by West in 1911 The use of optical instruments (microscope) for endonasal surgery was described by Heermann in 1958 Prades in 1970 and Rouvier et al in 1981. First reference to the use of endoscopes in (DCR) was made by Rice in 1988 and McDonogh and Meiring in 1989. **(Massegur et al; 2004)**

Although Caldwell described the intranasal (DCR) approach in 1893, technical shortcomings at that time precluded the intranasal approach from

gaining wide acceptance, and the external approach became the main treatment modality for nasolacrimal duct obstructions. During the last decade several new techniques became available in the treatment of NLD obstructions. These new techniques included revitalization of the intranasal endoscopic laser DCR, silicone intubation, endocanalicular and translacrima laser DCR, fiberoptic laser probing, and balloon catheter dilatation, for the treatment of nasolacrimal sac or lower level obstructions. For the time being, the two most popular and widely established treatment modalities are external and intranasal endoscopic DCR. **(Cokkeser et al; 2000)**

Massegur et al have suggested technical modifications using burrs or laser with their advantages and disadvantages. but the laser has some disadvantages concerning results and the cost-benefit ratio. They propose an endoscopic technique with the following technical modifications: (1) inferior and posterior nasal mucosal flap design, (2) dissection of the bony suture between the frontal process of the maxillary bone and the lacrimal bone, and the use of the Smith-Kerrison forceps to perform the

osteotomies, and (3) creation of a mucosal flap of the lacrimal duct and its insertion in the posterior nasal mucosal flap. (*Massegur et al; 2004*)

Endoscopic DCR is a valid alternative to external procedures in the management of nasolacrimal canal obstruction. (*Muscatello et al; 2005*)