

Congenital Nasolacrimal Duct Obstruction at Prince Rashed Hospital, Irbid, Jordan.

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Abstract:

Objectives: To estimate the frequency of congenital nasolacrimal duct obstruction (CNLDO) and to assess the results of its management.

Material and Methods: A prospective study of 80 consecutive patients with congenital nasolacrimal duct obstruction, conducted from January 2005 to December 2005 at Prince Rashed Hospital. Only patients below the age of twelve months were included in the study.

Diagnosis was made by history of epiphora beginning early in life with obstruction clinically confirmed on examination. Antibiotic drops and massage of the lacrimal sac was advised. Probing was carried out for the nonresolving cases at the age of one year, and balloon dilatation for the failed case.

Results: A total of 80 patients with CNLDO were included in the study. Thirty six (45%) of these infants had presented within the first two months of life. Out of these 80 patients 8 patients were lost to follow up. Out of remaining 72 patients, 66 (82.5%) recovered with conservative treatment with topical antibiotics within one year. Only 6 (7.5%) of the patients required probing; success was achieved in five (83.3%) patients and the one who failed was referred for intubation and balloon dilatation at King Hussein Medical Center, Amman.

Conclusion: Spontaneous improvement of CNLDO is the natural course in most patients and probing for unresponsive cases is recommended at one year of age.



Keywords: Congenital, Nasolacrimal, Probing

Congenital nasolacrimal duct obstruction (CNLDO) is the most common abnormality of the lacrimal system in childhood¹. The most common outcome is spontaneous resolution during the first year of life, and hence urgent surgical intervention is usually unnecessary. However, some children do require surgical treatment by probing². Conservative management includes warm compresses, massage of the lacrimal sac, and intermittent use of topical antibiotic ointment or drops³. Repeated courses of topical and sometimes systemic antibiotics are widely used to treat the discharge associated with congenital lacrimal obstruction⁴.

Probing of the NLD is a standard therapeutic procedure in the management of the non-resolving CNLDO. Controversy, however, exists regarding the outcome of probing in children older than 1 year. Some have advised probing up to 5 years⁵⁻⁷.

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Results

A total of 80 patients with CNLDO were included in the study. Thirty six (45%) of

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these infants presented within the first two months of life. Out of these 80 patients 8 patients were lost to follow up. Out of remaining 72 patients, only 6 (7.5%) required probing, one of them referred for intubation and balloon dilatation at King Hussein Medical Center, Amman. Table 1

Table 1: Natural History of (CNLDO):

Variable	No.	%
Spontaneous resolution	66	82.5%
Probing	06	07.5%
Lost follow up	08	10%
Total	80	100%

Discussion

Obstruction of the nasolacrimal drainage system is extremely common in pediatric age group, occurring in as many as 30% of new borns⁸.

Twenty per cent of infants develop the symptoms of congenital lacrimal obstruction during their first month of life⁴ compared to 45% in our study.

Disorders of the lacrimal drainage system manifest as epiphora and recurrent infections with mucopurulent discharge⁹.

Spontaneous resolution was the commonest outcome. However, the traditional approach that combines massage of the nasolacrimal sac and duct with topical antibiotic was adopted for our patients⁸.

Without treatment only 0.7% of infants will still be affected by their first birthday⁴ which is higher in our cases.

Probing was done to six of our patients. It was successful in five (83.3%) of them similar to a

report from India¹⁰. The remaining case was referred for balloon dilation.

Balloon dilation under fluoroscopic control is a safe and effective technique for the treatment of congenital lacrimal system obstruction as a primary procedure and as an alternative procedure after failure of probing or silicone intubation^{11,12}.

References

1. Ugurbas SH, Zilelioglu G, Saatçi M. Otolaryngological findings in congenital nasolacrimal duct obstruction and implications for prognosis. *Br J Ophthalmol* 2000; 84: 917-918.
2. MacEwen CJ, Young JDH, Barras CW, et al. Value of nasal endoscopy and probing in the diagnosis and management of children with congenital epiphora. *Br J Ophthalmol* 2001; 85:314-318.
3. Ballard EA. Excessive tearing in infancy and early childhood: the role and treatment of congenital nasolacrimal duct obstruction. *Postgrad Med* 2000; 107:149-54
4. Young JDH, MacEwen CJ. Fortnightly review: Managing congenital lacrimal obstruction in general practice. *BMJ* 1997; 315:293-296
5. Kashkouli MB, Beigi B, Parvaresh MM, et al. Late and very late initial probing for congenital nasolacrimal duct obstruction: what is the cause of failure? *Br J Ophthalmol* 2003; 87:1151-1153.
6. Maheshwari R. Results of Probing for Congenital Nasolacrimal Duct Obstruction in Children Older than 13 Months of Age. *Indian J Ophthalmol* 2005; 53:49-51.
7. Kashkouli MB, Kassae A, Tabatabaee Z. Initial Nasolacrimal Duct Probing in Children under Age 5: Cure Rate and Factors Affecting Success. *J AAPOS* 2002; 6:360-3
8. Maheshwari R. Management of Congenital Nasolacrimal duct Obstruction. *Journal of the Bombay Ophthalmologists' Association* 2005; 14:44-48.
9. Müllner K, Bodner E, Mannor GE. Endoscopy of the lacrimal system. *Br J Ophthalmol* 1999; 83:949-952.
10. Maheshwari R, Maheshwari S. Late probing for congenital nasolacrimal duct obstruction. *JCPSP* 2007; 17 (1): 41-43
11. Marr JE, Drake-Lee A, Willshaw HE. Management of childhood epiphora. *Br. J. Ophthalmol.* 2005; 89: 1123-1126.
12. Cho YS, Song HY, Ko GY, et al. Congenital Lacrimal System Obstruction: Treatment with Balloon Dilation. *JVIR* 2000; 11:1319-1324.