**Original article**

**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 childhood. 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 probing. Conservative management includes warm compresses, massage of the lacrimal sac, and intermittent use of topical antibiotic ointment or drops. Repeated courses of topical and sometimes systemic antibiotics are widely used to treat the discharge associated with congenital lacrimal obstruction.

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 years.

**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 non-resolving cases at the age of one year.

**Results**

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

<table>
<thead>
<tr>
<th>Variable</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous resolution</td>
<td>66</td>
<td>82.5%</td>
</tr>
<tr>
<td>Probing</td>
<td>06</td>
<td>07.5%</td>
</tr>
<tr>
<td>Lost follow up</td>
<td>08</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>100%</td>
</tr>
</tbody>
</table>

Discussion

Obstruction of the nasolacrimal drainage system is extremely common in pediatric age group occurring in as many as 30% of newborns. Eighty per cent of infants develop the symptoms of congenital lacrimal obstruction during their first month of life compared to 45% in our study.

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

Without treatment only 0.7% of infants will still be affected by their first birthday 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 India. 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.

References