Summary and Conclusion

The aim of this work is to evaluate the efficacy of the adjunctive use of low-dose MM-C during lacrimal probing as an initial treatment for epiphora due to obstructed NLDs in adults.

This study was conducted in the Ophthalmology Department, Benha University Hospital in the period between June 2003 and May 2004. It included 40 eyes of 30 adult patients (10 bilateral cases) complaining of epiphora due to PANDO. Their ages ranged between 21 and 60 years. Duration of epiphora ranged between 6 months and 6 years. Twenty-four patients were females and six patients were males.

All patients were subjected to careful ophthalmic history, ophthalmological and ENT evaluation. Also, NLD irrigation and DCG were performed for confirmation of NLDO.

The cases were classified according to the preoperative duration of epiphora into 4 groups: Group (I): < 2 years, Group (II): 2 – 3 years, Group (III): 3 – 4 years , and Group (IV): > 4 years.

NLD probing with adjunctive low-dose MM-C (0.2 mg/ml) was performed for all cases under local anaesthesia.

The study showed that the females are commonly affected with PANDO (80%) compared to males (20%), with a ratio 4 : 1.

The NLD patency rate was 90% (36 eyes) at the end of the follow-up period. 80% of cases (32 eyes) became patent after

performing a single probing with MM-C, while 10% of cases (4 eyes) required a second probing to gain patency, and 10% of cases (4 eyes) failed to maintain patency despite the second probing.

The relief of symptoms according to patient's assessment was complete, moderate and mild in 20%, 45% and 15% of cases respectively. However, only 75% of cases described their symptoms (i.e. epiphora) as being tolerable.

Moreover, the study showed that; there was a negative significant correlation between the preoperative duration of epiphora (years) and the degree of improvement according to patient's assessment ($r = -0.689$, $P = <0.001$). There was a statistical significant difference between group (I), (II), (III) and group (IV) ($P = <0.05$).

In conclusion, according to the results of our study, NLD probing is proved to be an effective initial procedure in managing epiphora in adults with PANDO being simple, quick, minimally invasive, easily performed under local anaesthesia, cost-effective, day-case procedure and does not compromise the patient for further lacrimal surgery if unsuccessful.

In addition, the use of a low-dose MM-C (1 ml) at low concentration (0.2 mg/ml) as an adjunct for NLD probing can improve both objective and subjective outcomes of the probing procedure without imposing any significant additional risks or complications. Also, it does not add any significant extra-time or cost to the procedure.

Moreover, this procedure compared to conventional DCR, not only avoids cutaneous scarring and other operative and postoperative complications such as haemorrhage, trauma, infections and risks of general anaesthesia, but also, preserves the functional pump mechanism of tearing by maintaining the integrity of the orbicularis muscle and medial palpebral ligament.

Although the success rate of conventional DCR surgery is higher than that of probing, yet, probing with MM-C provides an alternative treatment choice especially for elderly patients who are poor surgical candidates or those who refuse to do DCR surgery.

However, lacrimal surgery is still recommended when a second probing procedure with MM-C has failed as well as for those patients with severe NLDO when initial probing does not achieve patency or when probing is contra-indicated.