Introduction

Idiopathic or primary acquired nasolacrimal duct obstruction is a syndrome of unknown aetiology that accounts for the majority of cases of nasolacrimal duct obstruction (NLDO) observed in adults which are not related to trauma, neoplasm or systemic disease (***Guinot-Saera and Koay, 1998).*** It affects mainly middle aged and elderly women (***Fathi and El-Feki, 1998***).

Tearing is the most frequent presenting symptom of NLDO (86% of cases) (***Tarbet and Custer, 1995***). Although epiphora is not a visual threatening disorder, it can be a troublesome problem for patients (***Tsai et al, 2002***).

Most ophthalmic surgeons accept dacryocystorhinostomy (DCR) as a highly successful procedure in managing epiphora due to NLDO in adults with a success rate of about 90% (***Liao et al, 2000***). However, DCR is a surgical procedure which needs general anaesthesia, leads to cutaneous scarring, not suitable for elderly patients who are poor surgical candidates and it still has a failure rate of about 10% (***El-Yamany and El-Sadaani, 2002***).

Bell (1986) and ***Guinot-Saera and Koay*** (1998) have suggested that nasolacrimal duct (NLD) probing can be applied as an initial treatment procedure for adults with NLDO with a success rate up to 52% and 82 % respectively with the advantages of being simple, quick, safe, non-invasive, cost-effective, day-case procedure and does not compromise the patient for further NLD surgery if unsuccessful. However, the risk of inducing trauma and recurrent

obstruction from further fibrosis remains a major problem of probing. Therefore, in an attempt to achieve a long-term NLD patency after probing, an adjunctive low-dose Mitomycin-C was tried by ***Tsai et al*** (2002).

Mitomycin-C (MM-C) is an anti-neoplastic antibiotic agent isolated from Streptomyces Caespitosus, its action is similar to those of alkylating agents (***Spaeth, 2003***). It alkylates and cross-links DNA, and in addition may generate superoxide and hydroxyl radicals in solution. It also inhibits cellular RNA and protein synthesis at high concentrations. These combined effects may result in a long-term effect on cellular proliferation (***Cano-Parra et al, 1995***).

Therefore, it has been widely used as a surgical adjunctive in pterygium excision, trabeculectomy and DCR surgeries with more favorable results (***Kao et al, 1997***).