## Medial lower lid epiblepharon repair solely by skin-redraping medial epicanthoplasty

JeongJae Oh, KyeongWook Lee

ABSTRACT

Department of Oculoplasty, Saevit Eye Hospital, Goyang, Korea

#### Correspondence to

Dr KyeongWook Lee, Department of Oculoplasty, Saevit Eye Hospital, 1334-3 Baekseok-2dong, Ilsan dong-gu, Goyang-si, Gyeonggi-do 410-817, Korea; Ikw740306@hanmail.net

Received 16 January 2014 Revised 19 April 2014 Accepted 2 May 2014 Published Online First 22 May 2014

# **Background/aims** To evaluate clinical efficacy of a procedure using solely skin-redraping medial epicanthoplasty without traditional epiblepharon correction methods in patients with medial lower lid epiblepharon with epicanthal fold.

**Methods** This clinical practice study included 24 eyes of 12 patients with medial lower lid epiblepharon who underwent epiblepharon repairs from January to September 2012. The patients included were those whose cilia touch disappeared with medial epicanthal fold traction for temporary medial epicanthal fold repair during preoperative examination. The patients underwent the sole procedure of skin-redraping medial epicanthoplasty.

**Results** The mean age was 7.50±3.23 years and the mean period of follow-up was 12.5±3.80 months. Complete correction of cilia touch was observed in all patients. Surgical complications such as canalicular injury, skin fold, severe hypertrophic scar and excessive haemorrhage were not observed in any patients. Cosmetic results of surgical intervention were considered satisfactory by all patients, including one case of mild scar formation. There was no recurrence during the follow-up period.

**Conclusions** For patients with medial lower lid epiblepharon with epicanthal fold without excessive skin and muscle, a simple skin-redraping medial epicanthoplasty without traditional epiblepharon correction methods showed good results of epiblepharon repair.

### INTRODUCTION

There are two causes of congenital lower lid epiblepharon. First, excessive skin and orbicularis oculi muscle, which vertically pushes the cilia upward. Second, the epicanthal fold, which tangentially pulls the cilia inward (figure 1).

Traditionally, a resection of the excessive skin and orbicularis oculi muscle has been the treatment of choice for the correction of lower lid epiblepharon. Many lower lid epiblepharon repair techniques, using resection of excessive skin and orbicularis oculi muscle, exist to varying degrees, depending on the surgeon.<sup>1–5</sup> However, for Asians, epiblepharon is often accompanied by epicanthal fold, which is another main cause of epiblepharon.<sup>6</sup> In this case, the correction of vertical causes through the traditional lower lid epiblepharon correction methods may result in inadequate repair of medial lower lid epiblepharon due to the epicanthal fold, and it may also prompt a recurrence.

Therefore, some surgeons performed epiblepharon repair techniques and epicanthoplasty simultaneously.<sup>7 8</sup> In cases of lower lid epiblepharon, accompanied by epicanthal fold, Kashima *et al*<sup>7</sup> performed the modified Hotz procedure primarily, and the Z epicanthoplasty, secondarily. Jung *et al*<sup>8</sup> chose cilia rotating suture as the primary procedure and skin-redraping epicanthoplasty as the secondary procedure. Nonetheless, such studies report the efficacy of epicanthoplasty as a supplementary technique, subordinate to the traditional lower lid epiblepharon correction methods.

For certain patients whose cilia touch can be eliminated with a temporary loss of the medial epicanthal fold in the preoperative examination, the medial lower lid epiblepharon may have been caused by the epicanthal fold affecting the cilia tangentially. In such cases, it is questionable whether the traditional corrective methods of eliminating vertical causes-resection of excessive skin and muscle-will be effective for the epiblepharon repair. A more fundamental solution is to choose epicanthoplasty as the primary correction method for epiblepharon, as it can remove the tangential cause: medial epicanthal fold. However, there is no existing research that considers medial epicanthoplasty as a primary or singular correction procedure for lower lid epiblepharon, or reports the results of such.

This study employs skin-redraping medial epicanthoplasty, reported by Oh *et al.*<sup>9</sup> Unlike other epicanthoplasty techniques, skin-redraping medial epicanthoplasty incorporates an additional procedure that trims the extra skin and the orbicularis oculi muscle partially. This additional procedure can eliminate the tangential causes and the vertical causes of lower lid epiblepharon simultaneously (figure 2).

Hence, for certain patients with epiblepharon whose primary cause is the epicanthal fold, instead of the traditional lower lid epiblepharon repair techniques that primarily focuses on the resection of excessive skin and orbicularis oculi muscle, skinredraping medial epicanthoplasty can focus on the patients' primary cause, the medial epicanthal fold, while attending to the extra skin and orbicularis oculi muscle with a supplementary procedure. We intended to study if this practice leads to significant improvements in the correction of patients' cilia touch.

### PATIENTS AND METHODS

This was a clinical practice study. All procedures conformed to the tenets of the Declaration of Helsinki. The study was approved by the Institutional Review Board/Ethics Committee of the Saevit Eye Hospital, Goyang, Korea.

From patients who were diagnosed with lower lid epiblepharon from January to September 2012,



To cite: Oh JJ, Lee KW. Br J Ophthalmol 2014;98: 1437–1441.

