

# Comment on “Two-stage procedure in the management of selected cases of keratoconus: clear lens extraction with aspherical IOL implantation followed by WFG-PRK”

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**Dear Editor,**

We read with great interest the article by Abou Samra *et al*<sup>[1]</sup> about the management of selected keratoconus cases.

We would like to congratulate the authors for the originality of this study, but in our opinion there are some points that need to be clarified.

The authors included in this study 13 eyes of 11 patients. This number seems to be too small, to make a definite conclusion. Moreover from this number it is clear that in some patients both eyes have been evaluated while, in the others, only one eye has been evaluated, introducing in this way a bias in the study.

Another problem is related to the way the astigmatic correction has been estimated. According to the published data, it seems that astigmatic correction has been assessed without taking into account the vector analysis, which in these cases is mandatory, because it is necessary to analyze both the astigmatic power and the axis changes. In fact, a shift of the astigmatic axis correction could influence both astigmatic and spherical changes, and the only way to detect such influence is the vector analysis<sup>[2-3]</sup>.

Another issue that we would like to comment is the choice to perform a wave front-guided photorefractive keratotomy

(WFG-PRK) without cross linking. In our opinion this could be dangerous, because keratoconus is an evolutionary disease over a period of months, so the 6mo follow-up would not be sufficient to rule out a possible slantization after surface refractive surgery.

To support their choice, the authors cited some papers previously published, but the reported papers seem to be quite different. In fact Sachdev *et al*<sup>[4]</sup> analyzed healthy patients who underwent photorefractive keratotomy (PRK) versus patients with fruste keratoconus, who underwent corneal collagen cross-linking (CXL) and PRK, Xie *et al*<sup>[5]</sup> analyzed patients with keratoconus who underwent PRK after a previous epikeratophakia, and lastly Khakshoor *et al*<sup>[6]</sup> assessed patients with naturally stable keratoconus or after crosslinking, making in all these cases the comparison with the patients described in the paper by Abou Samra *et al*<sup>[1]</sup> meaningless.

Lastly, as the authors utilized Pentacam to detect the keratoconus progression, we would like to suggest to utilize the corneal volume instead of the minimum corneal thickness to detect such a progression<sup>[7-10]</sup>.

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