Prevention of Posterior Capsule Opacification by an Intracapsular Open Capsule Device

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A better understanding of posterior capsule opacification (PCO) development may be of critical importance to tackle PCO, which is still the main long-term complication after cataract surgery. Recently, a novel concept was introduced by Alon et al.¹ to keep the capsule bag open by implanting a test device into the capsular bag that comprises a closed circular ring with windows in the ring’s side wall. Additionally, the device has a sharp edge design.

Furthermore, the study investigated on the influence of the material of the test device and the IOL. Therefore, six groups were included in this study including a hydrophilic and a hydrophobic IOL, as well as hydrophilic and hydrophobic intracapsular open-capsule devices.

It was shown that an open capsular bag significantly reduces PCO in rabbits. The comparison between the hydrophilic and the hydrophobic material was not shown to be significantly different. One possibility for this effect could be that the test device mechanically blocks the migration of lens epithelial cells that remain at the equator of the capsular bag. It will be interesting to see whether this also succeeds in the human eye.

References


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