

6th Global Ophthalmologists Annual Meeting

May 16-18, 2016 Osaka, Japan

The immediate optical coherence tomography (OCT) evaluation of the cornea and the femtosecond laser created clear corneal incisions (CCI), in femtosecond laser assisted cataract surgery (FLACS)

Ellen Koo

Bascom Palmer Eye Institute, University of Miami Miller School of Medicine, USA

Cataract surgery is considered a safe and highly successful procedure in the United States. The advent of femtosecond laser technology now provides newer and possibly safer options for the surgeon to successfully carry out cataract surgery. One of the possible advantages of the femtosecond laser, is that the laser technology creates a replicable and thus possibly a more structurally sound, clear corneal incision. As cataract surgery in this day and age is now expected, by patients, to be largely “suture-less,” the risks of endophthalmitis are now deemed to be higher as a direct correlation to the increase in popularity in clear corneal incisions. The clear corneal wound needs to be structurally sound, as a leaky clear corneal wound becomes a direct entry site for bacterial species. While the prospect of a safer, replicable surgery is appealing, it is important to also consider the possible disadvantages of the laser technology. The usage of femtosecond laser technology in creating the laser-assisted in-situ keratomileusis (LASIK), as opposed to the older method of the handheld micro-keratome, has been commonly used as an analogy. There has been a rise in Diffuse Lamellar Keratitis (DLK) with the increase in usage of the femtosecond laser in flap creation; though the exact causes of DLK remain unknown, it has been proposed that the laser induces “collateral” damage—cell death and inflammation of the corneal epithelium and thus possibly contributory to the rise of DLK cases. The anterior segment OCT could possibly lend us more insight into the possibility of “collateral” damage from the femtosecond laser when used in FLACS—thickness and structural changes of the different layers of the cornea, especially the epithelium, the stroma and the endothelium, could possibly clue us into immediate collateral damage from the laser.

Biography

Ellen Koo, MD is an Assistant Professor at the Bascom Palmer Eye Institute, University of Miami Miller School of Medicine. She specializes in Cornea, Corneal Transplants and Cataract Surgery. She completed her Fellowship training in Cornea, Cataract Surgery and Refractive Surgery at the Wilmer Eye Institute, Johns Hopkins University School of Medicine. Prior to that, she completed her Ophthalmology residency at Brown University, Warren Alpert Medical School. She obtained her Medical Doctorate at the Eastern Virginia Medical School and her Bachelor's of Arts Degree at the Johns Hopkins University. She serves as a reviewer for *“The Journal of Ocular Immunology and Inflammation”* and *“The Journal of Clinical and Experimental Ophthalmology”*.

exk126@med.miami.edu

Notes: