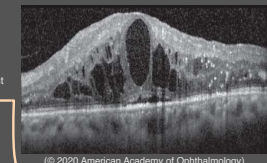
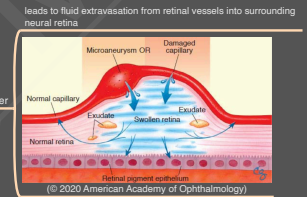


Diabetic Macular Edema (I)

Introduction

- hyperglycemia-induced breakdown of blood-retina barrier
- ± hard exudates precipitates of plasma lipoproteins
- central subfield-involved DME that affects the fovea is a common cause of vision loss
- more common in eyes with more advanced DR
- can be present in any severity level of DR



examination with OCT or slit-lamp biomicroscopy are the most appropriate methods to diagnose DME

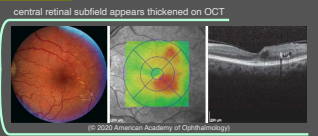
FA shows local areas of retinal capillary leakage

leakage on FA may occur in absence of macular edema

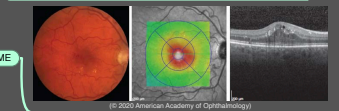
Classification of Diabetic Macular Edema

OCT-based classification

center-involved DME



non-center-involved DME



clinically significant diabetic macular edema (CSME)

- ETDRS
- CSME is a clinical diagnosis
- indication for focal laser photocoagulation
- criteria
 - retinal thickening located at or within 500 μ m of the center of the macula
 - hard exudates at or within 500 μ m of the center if associated with thickening of adjacent retina
 - zone of thickening larger than 1 disc area, if located within 1 disc diameter of the center of the macula

Focal macular edema

areas of local fluorescein leakage from specific capillary lesions

Diffuse macular edema

extensive retinal capillary leakage

no difference in treatment response based on pattern of macular edema (focal or diffuse)

Cataract Surgery in Patients With Diabetes Mellitus

DR and DME may worsen in severity after cataract surgery

preexisting center-involving DME

DRCR.net Protocol P

only a small percentage had substantial visual acuity loss or definitive progression in central retinal thickening

NPDR without concurrent center-involved DME

Protocol Q

presence of non-central DME immediately prior to cataract surgery, or history of DME treatment, increase risk of developing central-involved DME 16 weeks after cataract extraction

consider anti-VEGF injection preoperatively or steroid injection perioperatively for eyes with center-involved DME before cataract surgery

optimize systemic control prior to surgery

recommendations

consider scatter photocoagulation before cataract surgery in patients with severe NPDR or PDR

if ocular media not clear, prompt postoperative retinal evaluation and treatment are recommended

all patients with preexisting DR should be reevaluated after cataract surgery

adequate capsulorhexis

cataract surgery technique

may fog with condensation during subsequent vitrectomies avoid silicone lenses

if ocular media sufficiently clear