Title: Keeping Your Diabetic Patients for Life

This course will discuss updates in diabetes, new technologies for their treatment and management, as well as steps we can take to manage their vision loss

Course Objectives: At the end of the course, the participant will be able to:

1. Identify what diabetes is
2. Identify the types of diabetes
3. Recognize how diabetes can affect the patient’s vision
4. Explain how to share what diabetes does to the patient’s eye health
5. Explain the symptoms of diabetes
6. Apply their understanding of latest technology to manage diabetes to their workup

Outline:

1. Course Overview
2. Help Them Understand What Diabetes Really Is
   a. Defining diabetes (DM)
      i. Pre-Diabetes
      ii. DM Type I
      iii. DM Type II
      iv. Gestational Diabetes
   b. Demystify The Lies they tell themselves
      i. I have a ‘touch of sugar’
      ii. I control it with diet alone
      iii. I had DM but now I don’t
3. Explain to them that they are not alone
   a. Statistics about Diabetes
      i. Demographics
      ii. How the demographic is changing
   b. Prevalence of Diabetes in Texas/United States
      i. CDC
   c. Cardiovascular Anatomy and the Eye
      i. Carotid System
      ii. Ophthalmic Artery
      iii. Pathogenesis of Diabetic Retinopathy
      iv. Manifestations of Diabetic Retinopathy
4. Explain to them that it is important to catch it early
a. Early detection of diabetic retinopathy (AOA study)
i. Its effects on reducing risk of blindness

5. Share with them what they should look for
   a. What will your patients complain about
   b. Symptoms
      i. Weight loss
      ii. Fatigue
      iii. Weakness
      iv. Polyuria
      v. Polydipsia
      vi. Polyphagia
      vii. Fluctuating vision

6. What you can look for in your testing
   i. Your ‘difficult refraction’ – aka frequent flyer
      1. ‘normal vision’
         a. Never happy with the glasses
      2. Fluctuating vision
      3. Decreasing vision
   ii. Ocular signs

7. Questions to Ask the Diabetic Patient

8. Helping our patients manage diabetes
   a. It is a lifestyle change
      i. Five Steps to Prevent/Minimize Diabetic Eye Disease
         1. Comprehensive Eye Exams
         2. Blood Sugar Control
         3. Maintaining the A, B, C’s (hemoglobin A1c, blood pressure, and cholesterol)
         4. Smoking cessation
         5. Getting a move on - Exercise
      ii. Adaptations to new habits
         1. New food habits
            a. 6 worst foods for Diabetes
               i. Sugar
               ii. White Rice and Flour
               iii. Fried Foods
               iv. Margarine, fast food, processed baked goods
               v. Whole eggs
         2. New habits for taking medications
         3. Planning for doctor appts and having medications
4. Taking time to teach them their numbers
   a. Cheat sheet for techs to take home

b. The diabetic patient medical team – full time job
   i. Neurologist
   ii. Podiatrist
   iii. Optometrist
   iv. Ophthalmologist
   v. Low vision specialist
   vi. Occupational therapist
   vii. Psychologist
   viii. Nutritionist
   ix. Cardiologist
   x. Pharmacist
   xi. Exercise physiologist
   xii. Vascular surgeon

   a. OCT Angiography
      i. What it is- noninvasive method to provide 3D information about the blood flow in the choroid and the retina
      ii. Devices
         1. FDA Approved
            a. Zeiss AngioPlex
            b. Optovue Angiovue
         2. Non-FDA Approved
            a. Nidek AngioScan
            b. Topcon SS OCT Angio
            c. Canon

   b. How it works
      i. The OCT angiograms provide information about how the blood is moving in the different levels of the retina and choroid

   c. How it helps in Diabetes
      i. Can identify the early vascular changes including the enlargement of the foveal avascular zone, microaneurysms, capillary dropout, etc

d. How it compares to Fluroscein Angiography

10. How to help the patients function
    a. Enhancing vision
       i. High reading adds
       ii. Low Vision Aids
          1. Electronic
2. Non-electronic
   b. Teaching modifications
      i. Enhanced contrast
      ii. Enhanced lighting

11. Final Thoughts
12. Questions/Discussion

References:


