

Case Study Diabetes Mellitus Type 2

Mr. F. was diagnosed with type 2 diabetes mellitus at age 46. At that time, he was overweight, enjoyed foods with high carbohydrate and fat content, and led a sedentary life. His family history indicated that his mother and his brother had diabetes. Weight loss, appropriate diet, and exercise were recommended to reduce blood glucose levels.

1. List the factors contributing to diabetes mellitus in this case.

At age 50, Mr. F. noticed that his vision was cloudy, particularly in one eye. He had cataracts removed from both eyes.

2. Describe a cataract and explain how diabetes promotes cataract formation.
3. Glyburide (DiaBeta) was prescribed at this time. Describe the action of this drug.

At age 56, a blister developed on the heel of one foot, which did not heal. An ulcer formed and persisted. Finally, the foot was placed in a cast for 13 weeks to promote healing.

4. Explain several factors contributing to the delayed healing in Mr. F.

5. Why was it necessary in this case to remove the cast and replace it each week?

Peripheral neuropathy with total loss of sensory function had developed in both feet. Motor function was not directly affected. Orthopedic shoes were ordered, and arrangements were made for a podiatrist to provide regular foot care.

6. Why is it essential that Mr. F. examine his feet carefully each day?

At age 60, routine monitoring during a workout at the health club indicated atrial fibrillation. During the consultation, the cardiologist noted his blood pressure was very high.

7. Describe the usual manifestations of hypertension.

Since that time, continued regular exercise and dietary modification have maintained weight at recommended levels. Blood pressure is within normal range, HbA1c is below 7, and atrial fibrillation is controlled.

8. What does this HbA1c value mean?

9. Briefly review the effects of diabetes over time in this case.