Case Study
Mrs. Giammo
Neuro/TIA

Client Profile

Mrs. Giammo is a 59 year-old woman who was brought to the emergency department by her husband. Mr. Giammo noticed that all of a sudden his wife “was slurring her speech and her face was drooping on one side. Mrs. Giammo told her husband that she felt some numbness on the right side of her face and in her right arm. Mr. Giammo was afraid his wife was having a stroke so he brought her to the hospital.

Case Study

A fifty-nine (59) year old black American with hypertension and hypercholesterolemia is brought to the emergency department. She has a history of tobacco use for 25 year; quit ten years ago. Husband smoked one pack per day. She has a positive family history of heart disease. Occasionally takes walks in the neighborhood with friends, but does not have a regular exercise regimen.

In the emergency department, Mrs. Giammo is alert and oriented. Her vital signs are temperature 98.2 F (36.7C), blood pressure 148/97, pulse 81, and respiratory rate 14. An electrocardiogram (EEG, EKG) monitor shows a normal sinus rhythm. Mrs. Giammo is still complaining of “numbness” of the right side of her face and down her right arm. Her mouth is noted to divert to the right side with a slight facial droop when she smiles. Her speech is clear. She is able to move all of her extremities and follow commands. Her pupils are round, equal, and reactive to light (4mm to 2 mm) and accommodation. There is no nystagmus noted. Her right hand grasp is weaker than her left. Mrs. Giammo does not have a headache and denies any nausea, vomiting, chest pain, diaphoresis, or visual complaints. She is not experiencing any significant weakness, has a steady gait, and is able to swallow without difficulty. Laboratory blood test results are as follows: white blood cell count (WBC) 8,000 cells/mm, hemoglobin (Hgb) 14 G/dL, hematocrit (Hct) 44%, platelets = 294,000 mm, erythrocyte sedimentation rate (ESR) 15 mm/hr, prothrombin time (PT) 12.9 seconds, international normalized ratio (INR) 1.10, sodium (Na) 149 mEq/L, Potassium (K) 4.5 mEq/L, glucose 105 mg/dL, calcium (ca) 9.5 mg/dL, blood urea nitrogen (BUN) 15 mg/dL, and creatinine (creat) 0.08 mg/dL. A head computed tomography (CT) scan is done which shows no acute intracranial change and magnetic resonance imagery (MRI) is within normal limits. Mrs. Giammo is started on an intravenous heparin drip of 25,000 units in 500cc of D5W at 18 ml per hour (900 units per hour). Mrs. Giammo is admitted for a neurology evaluation, magnetic resonance angiography (MRA) of the brain, a fasting serum cholesterol, and blood pressure monitoring. Upon admission to the nursing unit, her symptoms have resolved. There is no facial asymmetry and her complaint of numbness has subsided.

Questions:

1. The neurologist’s consult report states, “At no time during the episode of numbness did the client ever develop any scotoma, amaurosis, ataxia, or diplopia.” Explain what these terms mean?
2. The neurology consult report includes the following statement: “Client’s diet is notable for moderate amounts of aspartame and no significant glutamate.” What are aspartame and glutamate? Why did the neurologist assess Mrs. Giammo’s intake of aspartame and glutamate?

3. Discuss the pathophysiology of a transient ischemic attack (TIA). Include in your discussion what causes a TIA and the natural course of a TIA. Explain how a TIA differs from a cerebrovascular accident (stroke, brain attack, CVA)?

4. Discuss the defining characteristics of a transient ischemic attack (TIA).

5. How does Mrs. Giammo’s case fit the profile of the “typical” client with a TIA?

6. Mrs. Giammo’s cholesterol lab work reveals total cholesterol = 242 mg/dL, low-density lipoprotein (LDL) = 165 mg/dL, high-density lipoprotein (HDL) = 30 mg/dL, triglycerides 240. Discuss the normal values of each and which of her results are of concern and why.

7. When told that her cholesterol levels are elevated, Mrs. Giammo asks, “I always see commercials on television saying you should lower your cholesterol. What is cholesterol anyway?” How could the nurse explain what cholesterol is and why it increases the risk of heart disease and stroke?

8. Identify Mrs. Giammo’s predisposing risk factors for a TIA and possible stroke. Which factors can she change and which factors are beyond her control? What can she do to change her risk factors?

9. The nurse hears a carotid bruit on physical assessment. What is a bruit and why is this of concern to the nurse? What would be likely diagnostic procedures ordered by the health care provider because of this assessment finding?

10. If a carotid ultrasound, carotid duplex, and /or MRA reveal carotid artery stenosis, what surgical procedure can resolve the stenosis?

11. Provide a simple rationale for including intravenous heparin in Mrs. Giammo’s treatment plan. Identify the potential life-threatening adverse effects/complications of heparin therapy and the treatment of heparin toxicity or overdose.

12. To assess for bleeding and possible hemorrhage, explain what the nurse monitors while Mrs. Giammo is on heparin therapy.

13. Identify six nursing diagnoses in order of priority appropriate for Mrs. Giammo

14. Atorvastatin 10 mg PO per day is prescribed for Mrs. Giammo. Explain the therapeutic effects of atorvastatin.

15. What type of lifestyle modifications should the nurse discuss with Mrs. Giammo (and her husband) prior to discharge?