

The Case of the Jamaican Fisherman

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Introduction

Omar is a 48-year-old Jamaican man who, before his stroke, supported himself and his extended family as a fisherman in the small rustic fishing village of Alligator Pond on the southwest coast of Jamaica in the parish of St. Elizabeth. The town derives its name not from a water source with alligators, but by the shape of the mountain range whose hills when viewed from the beach look like the bumps on an alligator's back.

Omar's family has lived in Alligator Pond for generations. His father, grandfather, and uncles were fishermen, and the women stayed at home to tend the children and their homes. Each time the family grew, a new house was erected on their land, resulting in a close-knit community of extended family. Omar is single and has his own house—a one room raised shack on sand dunes that are fifty feet from the shore. There are four narrow wooden steps to enter his home. Inside he has electricity run to his house from a family member's connection, a bed, one plastic outdoor type chair, a table, and several boxes. There is no indoor plumbing. The house is surrounded by those of his sister and numerous cousins, nieces, and nephews. He loves his independence, location on the beach, and the support of his family.

The family barter fish with local farmers who offer fresh produce in exchange. On Sundays the entire family attends church in Alligator Pond. Afterwards, the men gather around the boats to smoke and drink beer while they repair and organize fishing lines and traps for the coming week. Meanwhile, the women prepare a large meal that is eaten outside later in the afternoon. A typical Sunday meal includes fried fish, *festival* (fried bread), jerk chicken, and seasonal fruits or vegetables.

Before his injury, Omar's typical day was to rise early, eat salt fish for breakfast, and then get out on the ocean in his wooden 20-foot boat so that he could bring the fish back by early afternoon for restaurants and locals to serve for dinner. A day's catch often included cod, king fish, snapper, grouper, mackerel, tuna, and, if he was very lucky, perhaps a rare blue marlin. Cod was most plentiful and used to make salt fish and *ackee*, one of the most popular foods in Jamaica. The boat was powered by a small motor and also with oars. In a typical day, he traveled anywhere from 10 to 50 miles in search of fish. Some of the fishing was done by setting and pulling traps off the boat. At night Omar usually ate in the local restaurant on the beach with the other fishermen. Sometimes they would opt for fried meat patties in place of the usual fish.



Being a fisherman required physical fitness to move boats off and onto the shore, haul the traps, and to land and carry the fish. For example, kingfish tended to run between 35 and 50 pounds. Omar, like most fishermen, left school in his early teens and began fishing when he was young and fit. Omar appeared to be in good health and had no symptoms to indicate otherwise. He fished six days a week, and then took Sundays off to attend church, eat dinner with his family, and maintain his fishing gear. He did not own or drive a car.

One month ago, Omar suffered from a left cerebrovascular accident. He woke up early as usual, but by the time he got dressed, ate breakfast, and walked to his boat, he was aware of an excruciating headache. His brother convinced him to stay on shore for the day. Over the next several hours, he experienced slurred speech, right-sided weakness, and difficulty walking. His family had to get a taxi to travel 21 miles to the nearest hospital in Mandeville where Omar stayed for three days. The hospital and the city of Mandeville were busy and hectic compared to life in Alligator Pond and Omar was glad that his stay there was only for three days. When he was discharged, his family brought him home by taxi, carried him over the sand dunes to his house, carried him up the steps, and placed him in bed. For the next month, Omar was grateful to be at home. He stayed in bed while his extended family brought him meals and helped him with the bed pan. Doctors told him that his “stroke” was caused by high blood pressure, something he was unaware that he had. They gave him blood pressure medication and told him to take it easy. He and his family thought that it was safer for him to stay in bed than to move about and risk another stroke. His family was quite happy to help him with his care.

His first follow-up care was when the physical therapist (PT) arrived one month after he arrived home. Much to the PT’s consternation, Omar had not gotten out of bed or out of his house in one month. His speech had improved to a normal level, but he told the PT that he was unable to move his right arm or right leg or get out of bed. The PT’s first priority was to take his vital signs, which were: blood pressure 130/86, oxygen saturation 98%, pulse 84, and respiratory rate 16 breaths per minute. He could detect light touch, temperature, and proprioception on his left arm and leg, but not on his right arm or leg. His right arm and leg were smaller in circumference than his left arm and leg. The PT showed his family how to get him safely out of bed and into the chair that was in his room. She performed some exercises on his right arm and leg, resulting in Omar being able to move them slightly in anti-gravity positions. She instructed the family to get him out of bed every day and to continue the exercises she had just done. The therapist left promising to come back in one week and show him more exercises to strengthen his arms and legs.

Part I – Cultural Competence

The town of Alligator Pond has no healthcare facilities and a population of just fewer than two thousand people. Most of the residents live in homes without plumbing and many do not have electricity. Like Omar, most residents can not afford to own a car. The nearest hospital is in the city of Mandeville, which is 21 miles away. Farming, bauxite mining, and fishing are the main industries. There are four churches in Alligator Pond and several small shops that sell fish, farm goods, and local crafts.

Questions

1. Why do you think Omar stayed in bed for four weeks after he was discharged from the hospital?
2. In 2008, Jamaica adopted a national healthcare policy whereby healthcare and medications are free to all Jamaican citizens. How do you think this policy affected Omar, and what are the drawbacks that are seen in this case?
3. Despite his limitations, Omar and his family had no complaints when the therapist visited. It is not common for Jamaicans to complain about their disabilities. Why do you think this is so?

Part II – Neurological System

Omar was able to detect light touch, temperature, and proprioception on his left extremities. But he was not able to sense them on his right side. Omar and his family were thrilled to find out that he was beginning to get movement back in his right arm and leg and that he could sit up in the chair for part of the day. He needed help with the transfer from the bed to the chair as his balance was poor. He could not stand on his own.

Questions

1. Omar had difficulty moving his right arm or leg. Where in the brain would you expect the deficit to be located? Name one or two specific locations.
2. Explain how he could sense light touch, temperature, and proprioception on his left side, but not on his right side.
3. His standing balance was poor, requiring assistance to maintain the standing position. Name two parts of the brain that contribute to normal balance.
4. Explain why it makes sense that the left side of his brain was affected by the stroke but it was the right side of his body that he had difficulty moving.
5. Initially his speech was slurred. What parts of the brain were affected? Where are those structures located?

Part III – Cardiovascular System

Omar's initial symptoms were headache, slurred speech, right-sided weakness, and difficulty walking. Fortunately, he made it to a hospital before he became unresponsive or died. He was hospitalized for three days. There he received anticoagulants and blood pressure medication with monitoring, a CT scan, supplemental oxygen, and cardiac monitoring.

Questions

1. What are some of the risk factors for cardiovascular disease that may have contributed to Omar's stroke?
2. What are the two types of CVA? Which type do you think caused Omar's CVA? Explain your answer.
3. Why is high blood pressure called the "silent killer"?
4. What changes would you expect to find in Omar's heart after years of untreated high blood pressure? Explain why his high blood pressure caused these changes.

Part IV – Muscular System

Part of the PT program was to help Omar begin to move his right arm and leg. He was unable to do most of the movements on his own, but could begin to participate with the help of the PT or a family member supporting the weight of his right limbs. When Omar got out of bed, he needed help, but he was able to bear most of his weight on his left leg and pivot on the left leg to turn from the bed to the nearby chair.

Questions

1. The therapist noted that the muscles on the right side of Omar's body were smaller than those on the left side. What is this condition called?
2. Is this condition due to a loss of muscle cells? Explain your answer.
3. Name the three lower extremity muscles that need to be strengthened in order for Omar to be able to stand on his own, and explain how each muscle contributes to maintaining upright posture.

Part V – Respiratory System

In the hospital, Omar was given supplemental oxygen for the first two days. His past medical history was negative for respiratory disorders. The Jamaican climate is warm and humid year round, yet Omar was at risk of developing pneumonia during his first month of recovery at home.

Questions

1. For what physiological reasons did Omar need oxygen for the first two days of his hospital stay?
2. Give two reasons why Omar was at risk of developing pneumonia during his first month at home.
3. Name two respiratory muscles that may need to be strengthened in order to prevent respiratory complications. Explain the action of each.
4. When the therapist asked him to breathe in as deeply as possible and then exhale as much air as he could, which lung capacity did he demonstrate?



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