

Caida de mollera

Rosa had been carrying Miguel, her 1-year-old son when she tripped coming out of the small shack her family called home in the migrant camp for farm workers. Fortunately, she had been able to twist as she fell so that little Miguel landed against her first before sliding out of her arms and onto the ground. Even though she was a little dazed with a bump on the back of her head and a wrenched shoulder, Rosa quickly bent over and examined Miguel. He had no bumps or bruises, just a little scared from the unexpected trip onto the dirt road. Rosa dusted herself off, flexed her shoulder to make sure nothing was seriously amiss and continued on her way to her Cousin Maria's shanty where she was going to help cook the evening's meal for their families after a long days work harvesting produce.

As the ladies prepared the meal, Maria's two preschool-aged daughters enjoyed entertaining Miguel. The little girls would laugh as they quickly pulled Miguel's pacifier out his mouth to make a popping sound. Rosa was happy to have some family with her as they followed the harvests from camp to camp through the Southwest. The meal was simple, refried beans, chicken and rice. Unfortunately, the evening was cut short when Maria's 3-year-old daughter became ill. While sitting on her mother's lap complaining of an upset stomach, she vomited clear across the room where it hit the wall. Watery diarrhea quickly followed.

1. List and describe several pathogens that can cause gastroenteritis in children.

Rosa and her family left shortly after the vomiting incident. Two days later, little Miguel was sick also with vomiting and diarrhea.

2. How are diarrhea-causing pathogens typically spread? How was it spread to Miguel?

3. Why are young children at a higher risk than others for acquiring diarrhea-causing pathogens?

Fontanel – A space between the bones of an infant's skull which allow the bones to flex during birth.

As was her custom, Rosa took Miguel to the camp's curandera, a traditional healer. After listening to Maria's account of her last week's activities caring for Miguel, the curandera examined Miguel. She informed Rosa that Miguel was irritable, had a sunken **fontanel** and slightly sunken eyes. Along with the diarrhea and vomiting this meant that the baby had caida de mollera caused by the fall she had had with Miguel the day before. Although Rosa felt terrible for causing Miguel's illness, the treatment was simple and affordable. She was to push up on the roof of the baby's

Leukocytosis - An increase in the number of white blood cells in the blood.

Polymorphonuclear leukocytes – White blood cells which contain granules in the cytoplasm and have varying shapes of the nucleus.

Urinalysis - An array of tests performed on urine for medical diagnosis.

Specific Gravity - A test that detects solute concentration in the urine. High values indicate dehydration.

ELISA – Enzyme-Linked Immunoabsorbant Assay. A test used to detect antibodies to a specific microbial pathogen.



Rapid Antigen Test for Rotavirus

mouth with a finger before and after feeding and slap the bottom of his feet while holding the baby upside down over a pan of water. Rosa was also given a powder of Una de Gato (Cat's Claw), a traditional herbal remedy used to treat GI illnesses.

Although Rosa was careful to correctly administer the curanderas' treatments, little Miguel continued with diarrhea and vomiting into the next day and he was lethargic. Rosa, her sister-in-law and several aunts took little Miguel into an urgent care clinic in the nearby town to have a local physician examine Miguel. After a long wait and completion of the arduous task of filling out forms, Rosa was able to see the clinic's physician. The physician noted that Miguel had hyperactive bowel sounds and his eyes were sunken along with his anterior fontanel. He had a temperature of 39.5°C. Lab tests showed **leukocytosis** with a white blood cell count of 14,200/ μ l with 80% **polymorphonuclear leukocytes**. **Urinalysis** was significant for a high **specific gravity** (consistent with dehydration). Stool, blood and urine samples were sent for culture. A stool sample was also checked for ova and parasites. No leukocytes, ova or parasites were observed in the feces specimen. A rapid **ELISA** test of the fecal sample showed a positive result for rotavirus. The next day, stool, blood and urine cultures were negative for bacterial pathogens.

4. **What is the typical incubation period for rotavirus?**
5. **Describe the pathogenesis of rotavirus.**

A bilingual nurse at the clinic helped the physician discuss with the family the treatment plan for Miguel. Since Miguel's vomiting was severe, the physician recommended intravenous normal saline with nothing by mouth until his vomiting had stopped. Once lab tests showed Miguel was rehydrated and he was tolerating oral feedings he would be discharged home.

6. **What would be the recommended treatment if Miguel's vomiting was not severe?**
7. **Why didn't the physician suggest antiemetic or antidiarrheal medications?**
8. **What infection control precautions are necessary in the hospital setting when caring for a patient with gastroenteritis?**
9. **Traditional and herbal medicine plays an important role in many cultures. In what ways are traditional/herbal**

