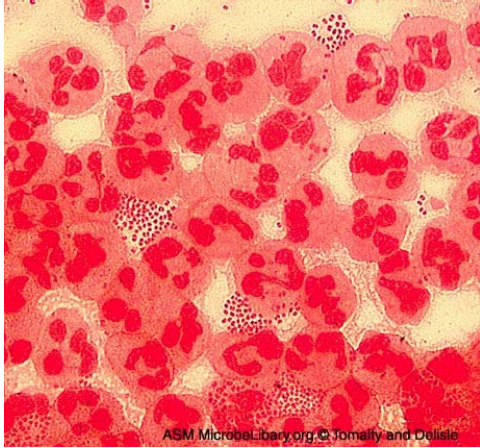


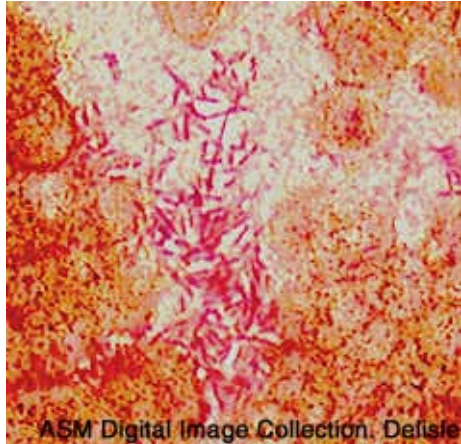
Case A.

A medical student on an international program in Namibia sees a 1-week-old infant with an eye infection. A sample of discharge from the eye is found to contain encapsulated, paired, gram-negative cocci.



Case B.

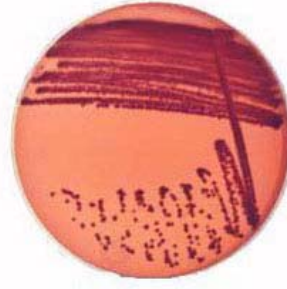
A 9-year-old boy with a 2-day history of diarrhea presents to the emergency room with blood in his stools and increased stool volume. He has vomited once. The boy went to a cookout 5 days earlier and ate a hamburger that was still "pink" inside. On examination he is well, apart from some dehydration. A culture of stool samples produces lactose-positive (pink) colonies on MacConkey agar, but nonfermenting colonies on MacConkey with sorbitol substituted for lactose.



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Lactose Negative

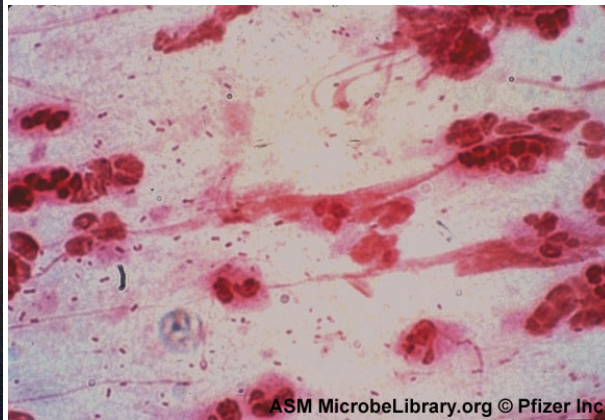


Lactose Positive

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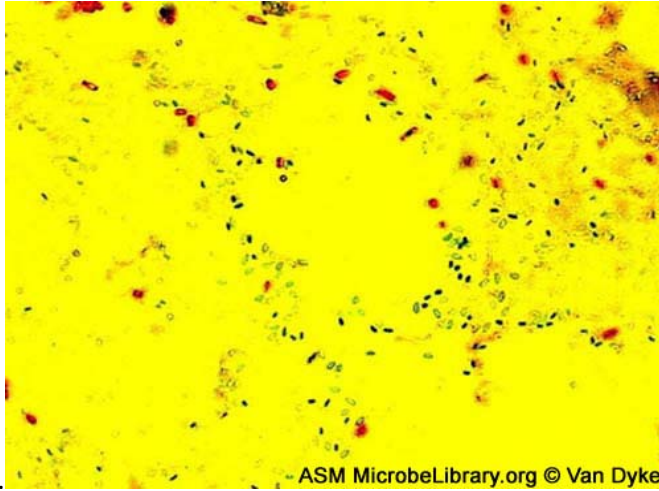
Case C.

A 1-year-old Eskimo child, Melissa, was admitted to a hospital in Alaska following a seizure and is limp and unresponsive. Her mother tells the physicians that the child had a runny nose earlier in the day and has been suffering from a cold for several days since beginning her enrollment at a daycare center. On closer examination, the patient is found to have an elevated temperature, rapid pulse, and supple neck. Overnight her neck becomes stiff, and blood and cerebrospinal fluid cultures are positive for gram-negative coccobacilli, which look like "rice grains" under the microscope. The bacteria need to be cultured under special conditions on blood and chocolate agars.



Case D.

A male injection drug user presents at the emergency room with nausea, vomiting, and severe stomach cramps, which began suddenly 18 hours ago. When interviewed, the patient stated that his last meal was a carton of rice from a Chinese restaurant that he found in a dumpster. Prior to this he was healthy, with no infection of any kind. The attending physician suspects a food



intoxication.

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Case E.

A 65-year-old alcoholic was taken to the emergency room with severe necrotic, blackened areas on both feet and several draining ulcers on his heels and toes. He was stuporous. During that evening he had a seizure and was treated with phenytoin and barbiturates. By the end of the night he had developed increasing rigor and respiratory distress and was unresponsive. His neck was stiff and hyperextended and his teeth clenched in a grimace. Specific therapy and supportive care led to his full recovery.

Case F.

A young female university student has been backpacking through the woods in Pennsylvania and presents to her primary care physician with a stiff neck, malaise, and evidence of healed insect bites. She also has a rash on her arm, which forms a series of flat reddened rings in the shape of a bull's eye.

