Genus: *Campylobacter*

Morphology

Campylobacters are curved, gram-negative rods that appear either **comma**- or **S-shaped** and are motile with monopolar flagellum. They are **microaerophilic,** growing best in 5% oxygen rather than in the 20% present in the atmosphere.

Pathogenesis and Clinical Findings

Campylobacter jejuni is the most important species related to genus *Campylobacter*, its frequent cause of enterocolitis (Gastrointestinal infection), especially in children. Other *Campylobacter* species are rare causes of systemic infection. *Campylobacter jejuni* is the leading cause of diarrhea associated with consumption of unpasteurized milk, accompanied by blood in stools. Systemic infections (e.g., bacteremia) occur most often in neonates or debilitated adults.

Transmission

Domestic animals such as cattle, chickens, and dogs serve as a source of the organisms for humans. Transmission is usually fecal–oral. Food and water contaminated with animal feces are the major sources of human infection. Foods, such as poultry, meat, and unpasteurized milk, are commonly involved. Human-to-human transmission occurs but is less frequent than animal-to-human transmission.

Laboratory Diagnosis

If the patient has diarrhea, a stool specimen is cultured on a blood agar plate containing antibiotics that inhibit most other fecal flora. The plate is incubated at 42°C in a microaerophilic atmosphere containing 5% oxygen and 10% carbon dioxide, which favors the growth of *Campylobacter jejuni*. It is identified by failure to grow at 25°C, but it grows well at 42°C, whereas other *Campylobacter* species does not—an observation that is useful in microbiologic diagnosis.

Treatment

Erythromycin or ciprofloxacin is used successfully in *Campylobacter jejuni* enterocolitis. Antibiotics susceptibility test should be done for correct choice of antibiotics.

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