Campylobacter

General Information

Campylobacter is a genus of bacteria commonly found in the intestines of animals, particularly birds and livestock. These bacteria can lead to gastroenteritis, known as Campylobacteriosis, primarily through the ingestion of contaminated food or water, or direct contact with infected animals.

Species	Common Hosts	Human Pathogenicity
C. jejuni	Poultry, cattle, sheep, dogs, cats	High (most common)
C. coli	Swine, poultry, cattle, wild birds	Moderate
C. upsaliensis	Dogs, cats	Low, but possible
C. fetus	Cattle, sheep, goats	Causes abortion in animals, serious in immunocompromised humans
C. lari	Seagulls, marine mammals	Rarely affects humans

Transmission

Animals play a critical role in zoonotic transmission to humans, primarily through:

- **Foodborne Exposure:** Consumption of undercooked poultry, contaminated dairy, or meat.
- **Direct Contact:** Handling infected pets or livestock.
- **Environmental Contamination:** Drinking untreated water contaminated by animal feces.

Farmers, veterinarians, and slaughterhouse workers face a higher risk of occupational exposure to *Campylobacter*.

Symptoms (Animals)

Many animals are asymptomatic carriers of *Campylobacter*, but in some cases, they can develop illness, especially in young or immunocompromised animals.

Clinical signs in animals:

- **Poultry:** Typically asymptomatic but can carry high bacterial loads.
- **Cattle & Sheep:** Diarrhea in young animals; abortion in pregnant females (*C. fetus*).
- **Pigs:** Usually asymptomatic, though *C. coli* may be present in the intestines.
- **Dogs & Cats:**
    - Puppies and kittens: May experience diarrhea, vomiting, and weight loss.
    - Adult dogs and cats: Often asymptomatic carriers.
- **Horses:** Infection is rare but may cause diarrhea.
- **Wildlife:** Acts as an environmental reservoir, contributing to bacterial spread.

Symptoms (Humans)

The main symptoms in humans include diarrhea (which may be bloody), abdominal cramps, fever, nausea, and vomiting, typically lasting between 3 to 7 days.

Treatment

Most cases resolve on their own without requiring antibiotics. Supportive care, such as hydration and electrolyte balance are important for recovery.

Potential complications of Campylobacteriosis:

- **Guillain-Barré Syndrome (GBS):** A rare autoimmune disorder that can lead to paralysis.
- **Reactive Arthritis:** Joint pain and inflammation that may develop after infection.
- **Bacteremia:** A rare but serious bloodstream infection, especially in immunocompromised individuals.

Prevention & Control

Prevention and control measures include:

- Wear protective gloves when handling infected animals.
- Isolate infected animals to prevent the spread of disease.
- Disinfect equipment and surfaces that may be contaminated.
- Wash hands frequently with warm water and soap.
- Ensure there is access to clean, uncontaminated water.

References

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