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News: Leptospirosis Outbreak in Kerala

- Recently, Leptospirosis or commonly called Rat fever has been reported in Kerala.

Leptospirosis / Rat fever

- Leptospirosis / Rat fever is caused by pathogenic spirochaetes of the genus *Leptospira*. These bacteria are zoonotic, meaning they are transmitted from animals to humans.
- Leptospire are bacteria that can be pathogenic. Pathogenic leptospire are found in the kidneys and genital tracts of certain animals and are the primary cause of leptospirosis in humans.
- **Reservoirs:** Many mammalian species can harbour leptospire in their kidneys, with rodents, cattle, pigs, and dogs being common reservoirs.
- Rodents are particularly significant as they can excrete leptospire throughout their lifespan without showing symptoms.

- Not all infected animals exhibit symptoms. Natural hosts often show no or few ill effects, but may develop illness after infection with another serovar (a distinct variation within a species of bacteria).
- **Transmission:** The disease is primarily transmitted through direct contact with the urine of infected animals or through contact with water, soil, or food contaminated with their urine.
- It can enter the human body through cuts, mucous membranes, or waterlogged skin. Rarely, the disease can be transmitted from human to human.
- **Symptoms:** It presents with a wide range of symptoms, from mild flu-like illness to severe conditions like Weil's syndrome (dysfunction of the kidneys and liver), meningitis, and pulmonary hemorrhage.
- The incubation period is typically 7-10 days, with symptoms such as fever, headache, and jaundice being common.
- Leptospirosis is often underdiagnosed due to its wide range of symptoms that mimic other diseases, and limited access to diagnostic tests.
- **Epidemiology:** It is a global disease but is most common in tropical and subtropical regions with high rainfall.
- It is particularly prevalent in South-East Asia, with India, Indonesia, Thailand, and Sri Lanka reporting most cases, especially during the rainy season.

- People in occupations with frequent animal contact, such as farmers, veterinarians, and sewer workers, are at higher risk.
- **Prevention:** Prevention involves controlling animal reservoirs, avoiding contact with contaminated water or soil, wearing protective clothing, and maintaining good sanitation practices.
- Dogs, pigs, and cattle can be vaccinated with serovar-specific vaccines. Immunisation helps prevent disease but may not eliminate renal carriage.
- **Treatment:** It is treated with antibiotics, such as penicillin G, doxycycline, and ceftriaxone.