Kala-azar Disease

For Prelims: Kala-azar Disease, Leishmaniasis, Black Fever, Global Programme to Eliminate Lymphatic Filariasis (GPELF), National Kala-azar Elimination Programme, National Vector Borne Disease Control Programme (NVBDCP)

For Mains: Initiatives related to the Control of Vector-Borne Diseases.

Why in News?

Kala-azar cases in India declined by 98.7% between 2007 and 2022, from 44,533 to 834 and 632 endemic blocks (99.8%) spread across Bihar, Uttar Pradesh, Jharkhand, and West Bengal have received elimination status (less than one case per 10,000).

• The only block that is still in the endemic category is Littipara in the Pakur district of Jharkhand (1.23 cases per 10,000 population).

What is Kala-azar Disease?

- About:
 - It is also known as Visceral Leishmaniasis or Black Fever or Dumdum Fever.
 - There are three types of Leishmaniasis:
 - **Visceral Leishmaniasis**, which affects multiple organs and is the most serious form of the disease.
 - Cutaneous Leishmaniasis, which causes skin sores and is the most common form.
 - Mucocutaneous Leishmaniasis, which causes skin and mucosal lesions.
 - It is a deadly parasitic disease caused by the protozoa parasite Leishmania and mainly affects the people living in Africa, Asia and Latin America.
 - The disease can cause death, if left untreated.
- Global and National Status:
 - According to the <u>World Health Organization (WHO)</u>, Kala-azar is the second deadliest parasitic disease in the world, and as of November, 2022, about 89% of global cases are reported from eight countries: Brazil, Eritrea, Ethiopia, India, Kenya, Somalia, South Sudan, and Sudan.
 - India contributes about 11.5% of total cases of Kala-azar reported globally.
 - Over 90% of kala-azar cases in India are reported from Bihar and Jharkhand, while Uttar Pradesh and West Bengal have achieved their elimination targets at the block level.
- Transmission:
 - It is transmitted to humans by the **bite of an infected female phlebotomine sandfly.**
- Signs and Symptoms:
 - Fever, weight loss, anemia, and enlargement of the liver and spleen.
- Prevention:
 - Prevention of kala-azar involves measures to **reduce the breeding sites of sandflies**

and to protect people from sandfly bites.

- This can be achieved through the **use of insecticides**, **bed nets**, **and repellents**, **as well as the improvement of housing conditions** and access to clean water and sanitation.
- The WHO also recommends Mass Drug Administration (MDA) in areas where the disease is endemic.
- Treatment:
 - The treatment of kala-azar involves the use of drugs, such as sodium stibogluconate and meglumine antimoniate.
 - The WHO recommends a **combination of two or more drugs for the treatment of kala-azar**, as monotherapy has a higher risk of treatment failure and drug resistance.

Related Initiatives:

- Global:
 - WHO's New Roadmap for 2021-2030: To prevent, control, eliminate and eradicate a set of 20 diseases, termed neglected tropical diseases, by 2030.
 - The WHO has also established the <u>Global Programme to Eliminate Lymphatic</u> <u>Filariasis (GPELF)</u>, which aims to eliminate lymphatic filariasis, onchocerciasis, and Kala-azar by MDA.
 - The target set by GPELF in 2000 to eliminate these diseases globally by 2020 was not achieved. Despite setbacks due to <u>Covid-19</u>, WHO will accelerate work to achieve this target by 2030.
- Indian:
 - The central government has taken several steps to achieve its goal of eliminating kala-azar from India by 2023, including building pucca houses through the <u>PM-AWAS yojana</u>, rural electrification, testing, treatment, periodic high-level review, and award distribution.
 - The Centre is also supporting the states in active case detection, surveillance, treatment, and supply of diagnostic kits, medicines, and sprays.
 - <u>National Kala-azar Elimination Programme</u>
 - The National Health Policy-2002 set the goal of Kala-azar elimination in India by the year 2010 which was revised to 2015.
 - India signed a **Tripartite Memorandum of Understanding (MoU) with Bangladesh and Nepal to achieve Kala-azar elimination** from the South-East Asia Region (SEAR).
 - Presently, all programmatic activities are being implemented through the National Vector Borne Disease Control Programme (NVBDCP) which is an umbrella programme and is subsumed under <u>National Health</u> <u>Mission (NHM)</u>.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. Consider the following statements: (2017)

In tropical regions, Zika virus disease is transmitted by the same mosquito that transmits dengue.
 Sexual transmission of Zika virus disease is possible.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Ans: (c)

Exp:

- Zika virus is a flavivirus which was first discovered in 1947 in monkeys and then in humans in Uganda in 1952.
- Both Zika and Dengue have similarities in terms of symptoms of fever, skin rashes, conjunctivitis, muscle and joint pain, malaise, and headache. In addition to this, the mode of transmission is also same for both the diseases, i.e., both are spread by Aedes aegypti and Aedes albopictus species of mosquitoes. Hence, statement 1 is correct.
- Modes of Zika Transmission
 - Mosquito bites
 - From mother to child during pregnancy, which can cause microcephaly and other severe fetal brain defects. Zika virus has also been found in breast milk.
 - Sexual transmission from infected partner. Hence, statement 2 is correct.
 - Through blood transfusion.
- Therefore, option (c) is the correct answer.

Source: DTE

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