Food Vaccine for TB Patients

What is the issue?

Without addressing undernutrition, the goals of reducing the incidence of Tuberculosis (TB), and mortality, in India, cannot be reached.

What is the historical importance of good nutrition?

> *TB is one of the leading causes of mortality in India killing more than 3,00,000 people every year.*

- There were no drugs for TB till the discovery of streptomycin in 1943.
- The TB mortality rate came down from 300 people per 1,00,000 population to 60 in England and Wales with
    - improved wages
    - better living standards
    - higher purchasing power for food
- TB disappeared from socio-economically developed countries long before the advent of chemotherapy.
- After the Second World War, a 92% reduction in the incidence of TB was reported among British soldiers who were fed an additional Red Cross diet compared to Russian soldiers who were fed only a camp diet.

What issues popped up after the advent of drugs?

- **Neglection of social determinants**- In the ecstasy of finding antibiotics, the social determinants of the disease were ignored.
- There was little done to understand where patients lived, what work they did, how much they could afford to buy food, and how much they ate.
- **Drug resistance**- Blister packs of a multi-drug regime were provided at the doorstep.
- With more drug arsenals such as rifampicin, ethambutol, pyrazinamide, the disease became multidrug resistant.

How is nutrition linked with TB?

- Tuberculosis is considered as a disease of the poor.
- The nutrition of the individual is the most vital factor in the prevention in tuberculous disease.
- It is most unlikely that drugs alone, or drugs supplemented by vaccination, can control TB in the underprivileged countries as long as their nutritional status has not been raised to a reasonable level.
- The fact is that 90% of Indians exposed to TB remain dormant if their nutritional status and the immune system is good.

- When the infected person is immunocompromised, TB as a disease manifests itself in 10% of the infected.
- **Findings**- As per the findings of a team at the Jan Swasthya Sahayog hospital in Chhattisgarh, there was a two to four-fold rise in the mortality associated with TB with increased levels of undernutrition.
- The 2019 Global TB report identified malnutrition as the single-most associated risk factor for the development of TB with other risks such as smoking, use of alcohol, diabetes and HIV.
- Undernutrition and TB are syndemics, and the intake of adequate balanced food can work as a vaccine to prevent TB.
- The food vaccine is a guaranteed right for life under the Constitution for all citizens, more so for TB patients.

The poor are three times less likely to go for treatment and four times less likely to complete their treatment for TB, according to WHO (2002)

What is the need of the hour?

- **Cash benefits**- In 2018, under the Nikshay Poshan Yojana of the National Health Mission, all States began extending cash support of Rs. 500 per month to TB patients to buy food.
- This amount needs to be raised.
- **Support**- Without simultaneous nutrition education and counselling support, this cash transfer will not have the desired outcome.
- **Providing nutritious foods**- Chhattisgarh initiated the supply of groundnut, moong dhal and soya oil to TB patients and this model can be inculcated by other states.
- The goals of reducing the incidence of TB in India and of reducing TB mortality cannot be reached without addressing undernutrition.

In 2018, India had envisioned ending TB by 2025, five years ahead of the global Sustainable Development Goal (SDG) target of 2030.

References

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