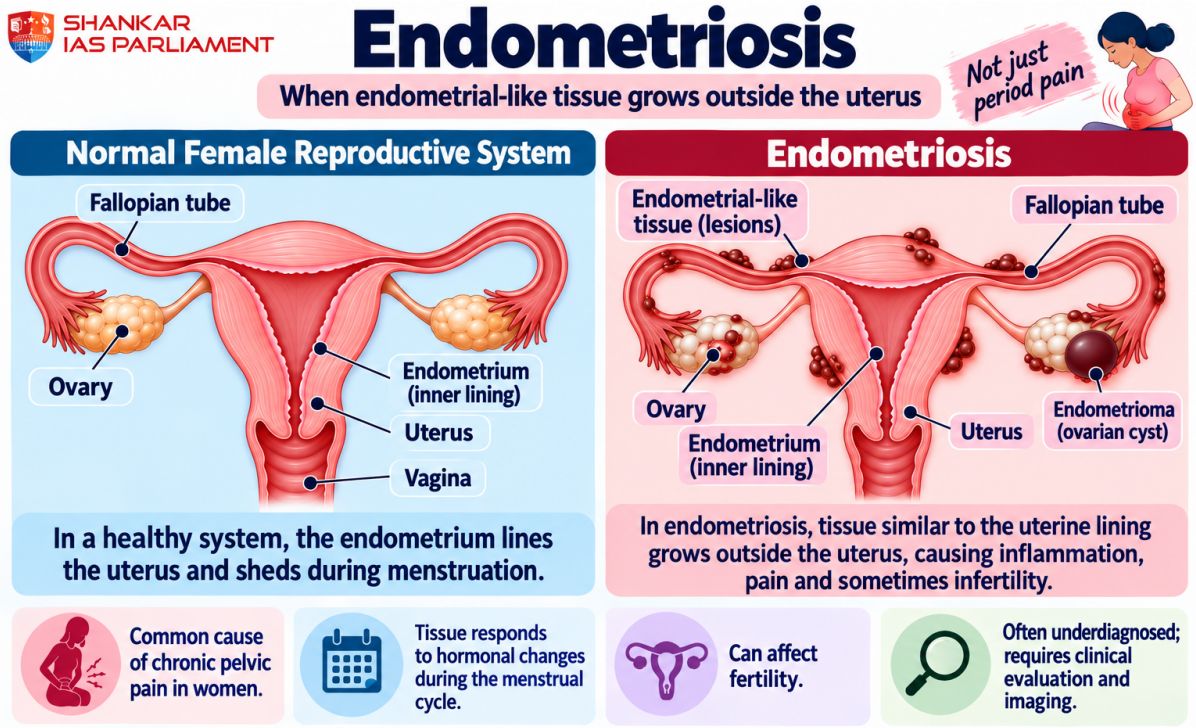
Endometriosis — India’s First Genome Study

Prelims: *Current events of national and international importance | Disease*

Why in News?

India’s first genome-wide study of endometriosis has identified 21 genetic regions potentially linked to the disease in Indian women.

- **Endometriosis –** It is a chronic condition in which **tissue similar to the lining of the uterus (endometrium) grows outside the uterus**.
- This condition leads to inflammation and the formation of scar tissue.
- It can develop at any time from **menarche to menopause**, regardless of ethnic or social background.
- It can also affect **transgender men and non-binary menstruating individuals**.
- Globally, it affects approximately 10 percent of women of reproductive age, or about 190 million individuals.



- **Treatment – No definitive cure currently exists.**
- **Common symptoms**
  - Severe menstrual/period pain

    - Chronic pelvic pain
    - Pain associated with menstruation
    - Infertility
    - Sometimes other pain-related symptoms
- **Potential Future Applications**
- Study provides evidence that **genetic susceptibility may contribute to endometriosis**.
- The findings may contribute to research in the following areas:
- **Disease mechanisms –** Advancing understanding of the biological pathways involved in endometriosis.
- **Earlier recognition –** Facilitating the identification of women who may require closer clinical attention.
- **Non-invasive diagnostics –** Supporting the development of diagnostic approaches that could reduce reliance on invasive procedures.
- **Personalised treatment –** Enabling the customization of treatment strategies based on individual biological or genetic profiles.

Endometriosis Clinical and Genetic Research in India (ECGRI)
• The initiative was established to develop a comprehensive clinical and genomic dataset of Indian women diagnosed with endometriosis. • **Key Features** • The study involved collaboration among **18 centres across India.** • Participants included women with **surgically confirmed diagnoses of endometriosis.** • Control participants were also included for comparative analysis. • The dataset integrates the following components: - Clinical information - Genomic data - Biorepository

Reference

Indian Express | Endometriosis Could Be Genetic