Foetus in foetu

Why in News?

Doctors at the Buldhana District Women's Hospital in Maharashtra recently detected a rare case of "foetus in foetu" in a pregnant woman.

- It is a congenital disorder occurs when a ***malformed foetus*** develops inside another foetus. It is also known as cryptodidymus.
- It is a foetus-like mass developed within the body of the other foetus in a ***monozygotic twin pregnancy***.
- Basically, one twin is very underdeveloped and enwrapped inside the body of the other twin, so much so that the pregnancy is considered a singleton pregnancy.
- The presence of a twin inside the body of the other twin may go ***undetected for years.***
- **Causes** - The exact cause of this condition is not fully understood, but it's believed to result from an anomaly during the development of monozygotic or identical twins.
- About 10 to 15 days after the conception of monozygotic twins, the cell mass of the embryo may be split unevenly.
- It is due to which one twin is smaller and incompletely formed with the other twin fully developed.
- The smaller twin gets trapped within the larger twin.
- The trapped twin is considered "parasitic," as it draws its blood supply and nutrients from the other "host" twin.
- The trapped or "parasitic twin" has some morphologic features of a normal foetus such as
    - An umbilical cord-like structure,
    - A bag of membranes surrounding it, and
    - Blood vessel connections to the host twin.
- It may have a vertebral column, limbs, and a few organs but lacks vital organs like the brain, heart or gut.
- Despite having "living tissue," the parasitic twin has no prospects of independent existence outside the host twin.
- The presence of the parasitic twin affects the health of the host twin, who has to "feed" the former from the nutrients received over a single umbilical cord.
- In addition, enlargement of the trapped parasitic twin may compress vital organs in the host and cause discomfort or life-threatening complications.
- Generally, the parasitic twin is found in the abdomen of the host twin. Rarely, it may be found in other organs like the brain or chest.
- Most of the cases reported have presented in childhood as an abdominal mass causing gut obstructions and swelling.
- X-rays and CT scans have confirmed the presence of foetal structures like digits, limbs, a spine, etc., in the mass.
- Treatment is surgical excision of the mass, the parasitic twin with special attention being given to the foetus' blood supply.
- **Prevalence** - It affects about one in 500,000 births. Less than 200 cases have been reported worldwide, with about 10 to 15 cases in India.

Reference

1. The Hindu | Foetus in foetu
2. Economic Times of India | What-is-foetus-in-fetu?

