

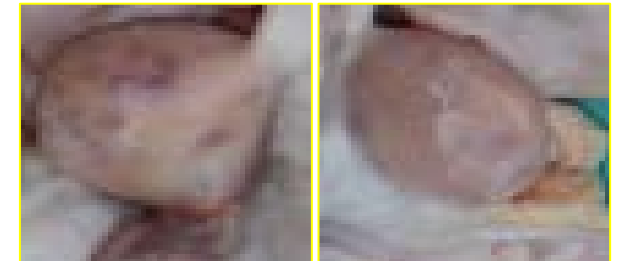


ANESTRUM

(Anestrus in dairy animals)

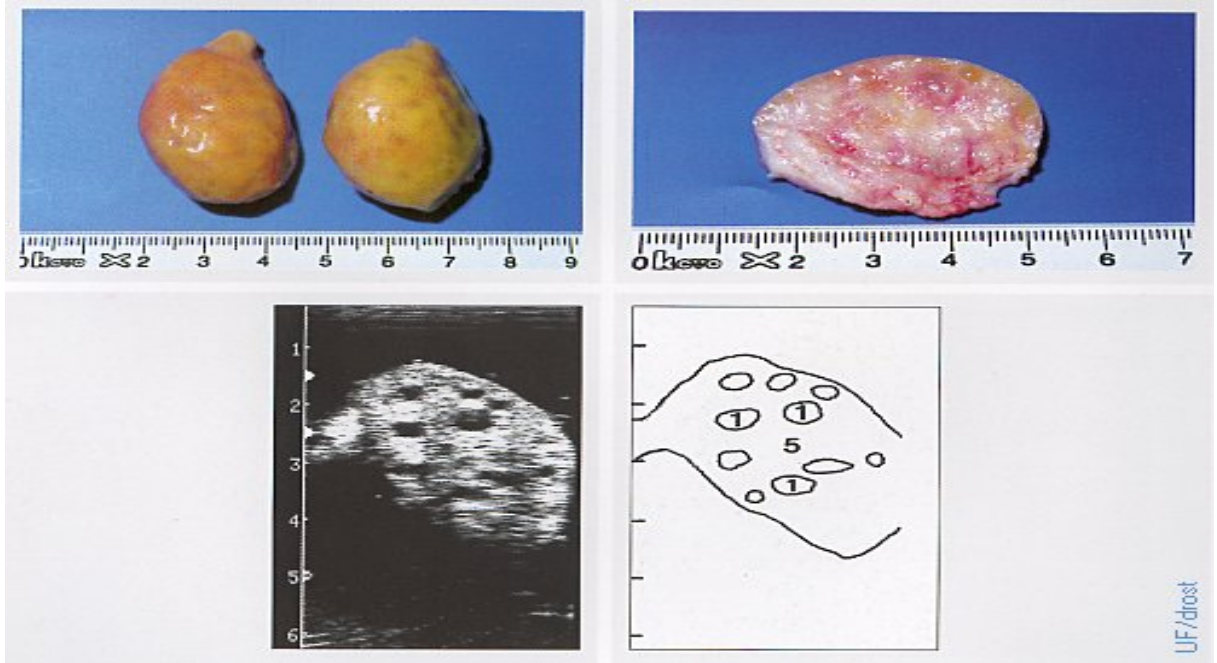
Lecture 4

True anestrus , types, etiology and pathogenesis



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- Small inactive ovaries - no functional CL.
- May be due to an insufficient release of gonadotropins or failure of ovaries to respond.



- ❖ A low plane of nutrition - most common cause - lack of energy and protein, deficiency of minerals namely P, Co, Fe, Cu, I and Mn and Vitamin A
 - Heavy lactation - negative energy balance.
 - Chronic debilitating disease - like JD, TB *etc.*
 - Senility with loss of teeth.



- **Seasonal and environmental influence.**
- **Closely confined dark stables, lack of exercise combined with nutritive factors.**
- **Suckling - prolactin reduces the ovarian sensitivity.**

concentration of gonadotropins is almost negligible in late gestation



High progesterone secreted by corpus luteum, placenta and estrogen from placenta during last trimester of pregnancy



-ve Feedback

inhibition of hypothalamic–pituitary axis

Physiological True Anestrus

- ❖ Prepubertal anestrus
- ❖ Gestational anestrus?
- ❖ Postpartum anestrus
- ❖ Lactational anestrus

Types of True Anestrus

Congenital and hereditary causes of True anestrus

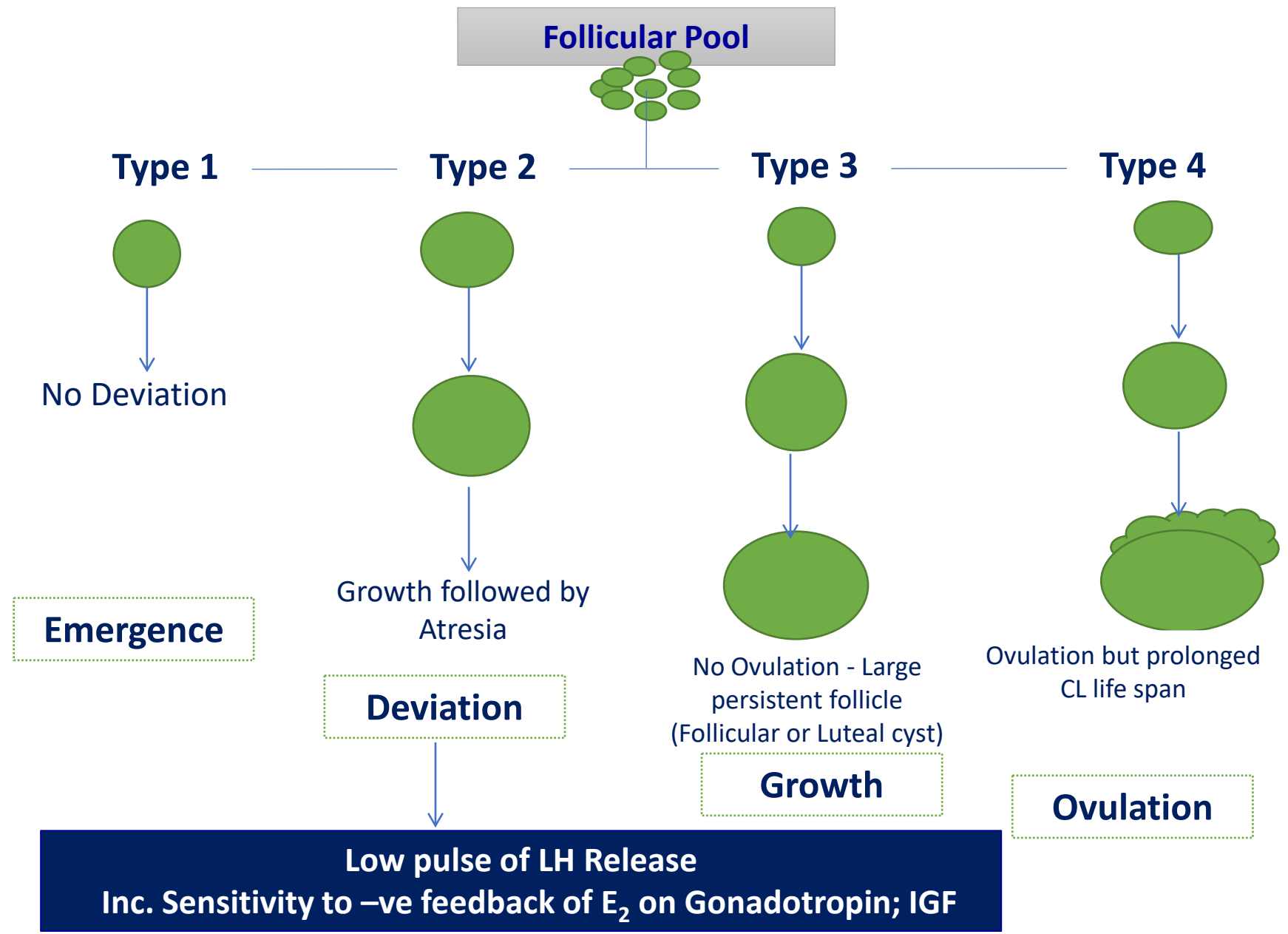
- ❖ Ovarian agenesis or dysgenesis
- ❖ Ovarian hypoplasia
- ❖ Freemartin



Pathological True anestrus

- ❖ Anovulatory anestrus–I (Emergence)
- ❖ Anovulatory anestrus–II (Deviation)
- ❖ Anovulatory anestrus–III (Growth)

Recent Concepts in Anestrus classification ovarian dynamics



- ✓ True anestrus
- ✓ Causes of true anestrus
- ✓ Types of True anestrus
 - Physiological
 - Congenital
 - pathological

Thank you