Patofisiologi Case 7

Paritas rendah
- ↓↓ Remodelling ECM terhadap miometrium → Deposisi ECM secara berlebihan (kolagen, fibronektin, proteoglikan)
- > Siklus anovulasi → Hipotesis "unopposed estrogen" → ↑↑ Paparan estrogen

Usia 40-50 tahun → ↑↑ paparan estrogen

Obesitas
- ↑↑ jaringan adiposa → aromatase: androgen → estron → 17 β-hidroksisteroid dehidrogenase tipe II → estradiol
- ↓↓ Sintesis SHBG

↑↑ Estrogen

↑↑ formasi ECM

↑↑ PDGF
- ↑↑ proliferasi sel miometrium
- Mitogen sel vaskular otot polos miometrium

↓↓ miostatin
- proliferasi sel otot polos uterus

Menekan PS3 (tumor suppressor) → sel terus membelah

↑↑ PR → ↑↑ sensitivitas jaringan thd Progesteron
- ↑↑ EGF
- ↑↑ formasi ECM
- ↑↑ TGFβ3
- ↑↑ BCl-2 (antiapoptosis)

Proliferasi jinak sel monoklonal miometrium mjd massa

↓

Uterine fibroid / Leiomyoma

↑↑ luas permukaan endometrium → Endometrium proliferasi dan luruh saat menstruasi → ↑↑ perdarahan pervaginam (menorrhagia)
- ↓↓ Suplai darah → pucat, Konjungtiva anemis
- ↓↓ Hb (8%)
- Durasi menstruasi memanjang
- pusing

Uterus membesar

Px. Abdomen
- Sedikit menonjol di atas simfisis
- massa padat sebesar kepala bayi di garis tengah → umbilikus, permukaan halus, mobile, ≠ nyeri

Px. Vagina
- Portio : sedikit bergeser ke dextro-anterior

Px. Bimanual
- massa padat, irreguler, sebesar uterus kehamilan 16 minggu, menempati rongga panggul
- Batas tegas
- Di bag. posterior kiri massa, kontur sedikit terdistorsi o/ penonjolan nodular
- Uterus menyatu dgn massa

Lab. Patologi

Makroskopik :
Jar. sampel bercampur dgn nekrosis & bekuan darah

Mikroskopik :
- Kelenjar endometrium tubular & melebar
- Dilapisi sel kolumnar hiperplastik
- Kelenjar cribiform
- Inti: dbn

USG
- Uterus membesar 14 x 10 x 7 cm
- Kontur irreguler
- Hipoekoik nodular berbagai ukuran di korpus uteri posterior & fundus, dlm miometrium
- Endometrium menebal (19mm)

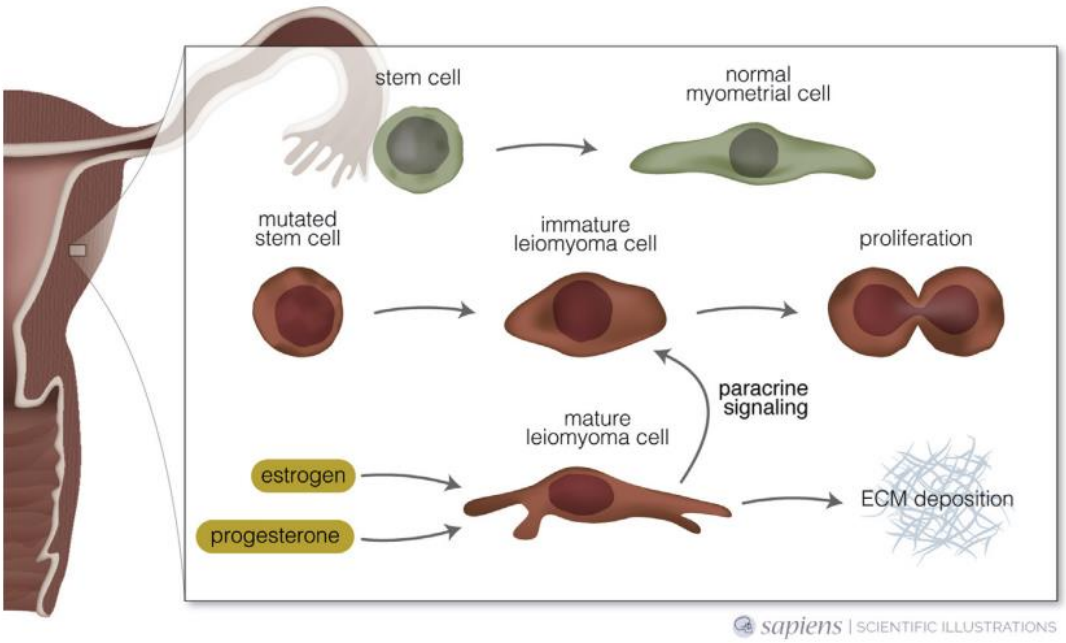

Fig. 1. Diagrammatic representation of the roles of estrogen and progesterone in the pathogenesis of uterine fibroids. ECM: extracellular matrix.

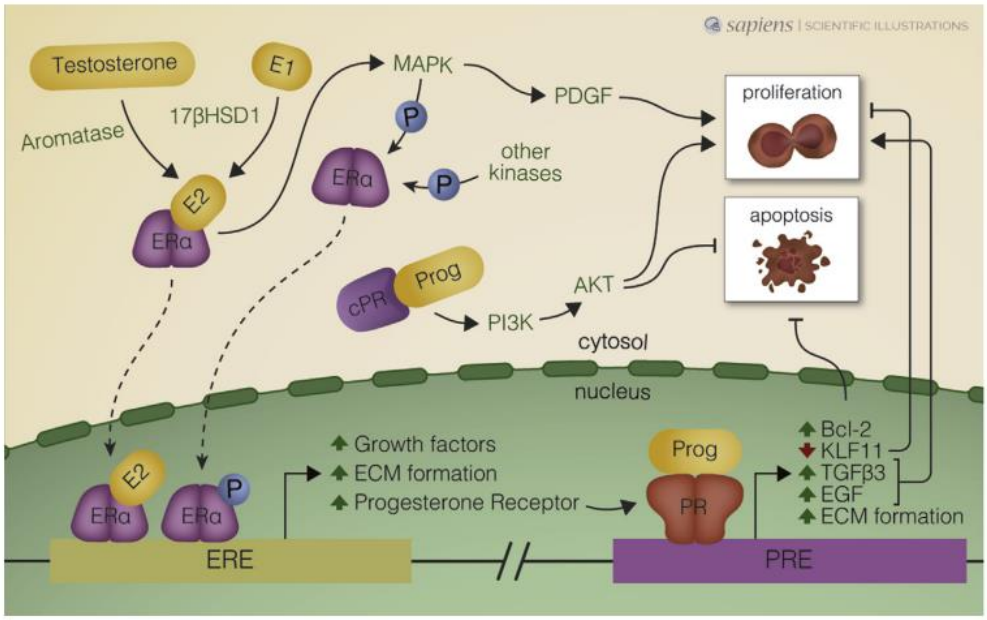

Fig. 2. Schematic illustration of autocrine and paracrine mechanisms activated by estrogen receptor alpha (ERα) and progesterone receptors (PRs) in uterine leiomyoma cells. Estradiol (E_2) arrives with blood supply (endocrine) but is also synthesized within the cell (autocrine) from precursors such as testosterone and estrone (E_1). ERα may be phosphorylated (P) by kinases and interact with estrogen response element (ERE) in the nucleus. 17βHSD1: 17β-hydroxysteroid dehydrogenase type 1; MAPK: mitogen-activated protein kinase; PDGF: platelet-derived growth factor; PI3K: phosphatidylinositol-3-kinase; AKT: serine/threonine protein kinase B; Bcl-2: B-cell leukemia/lymphoma-2 protein; KLF11: Kruppel-like transcription factor 11; TGF-β3: transforming growth factor β3; EGF: epidermal growth factor; ECM: extracellular matrix; Prog: progesterone; cPR: progesterone receptor in the cytosol; and PRE: progesterone-responsive element.