IGCS
INTERNATIONAL GYNECOLOGIC CANCER SOCIETY

GYNECOLOGIC CANCER INTERGROUP
An Organization of International Cooperative Groups for Clinical Trials in Gynecologic Cancers

# Gynecologic cancer update : Uterine cancer

# 子宮体癌

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**Seoul National University**
**ソウル国立大学**

Eriko Aotani Patient-Caregiver Symposium – Kyoto, Japan -- September 13, 2018

# COI disclosure

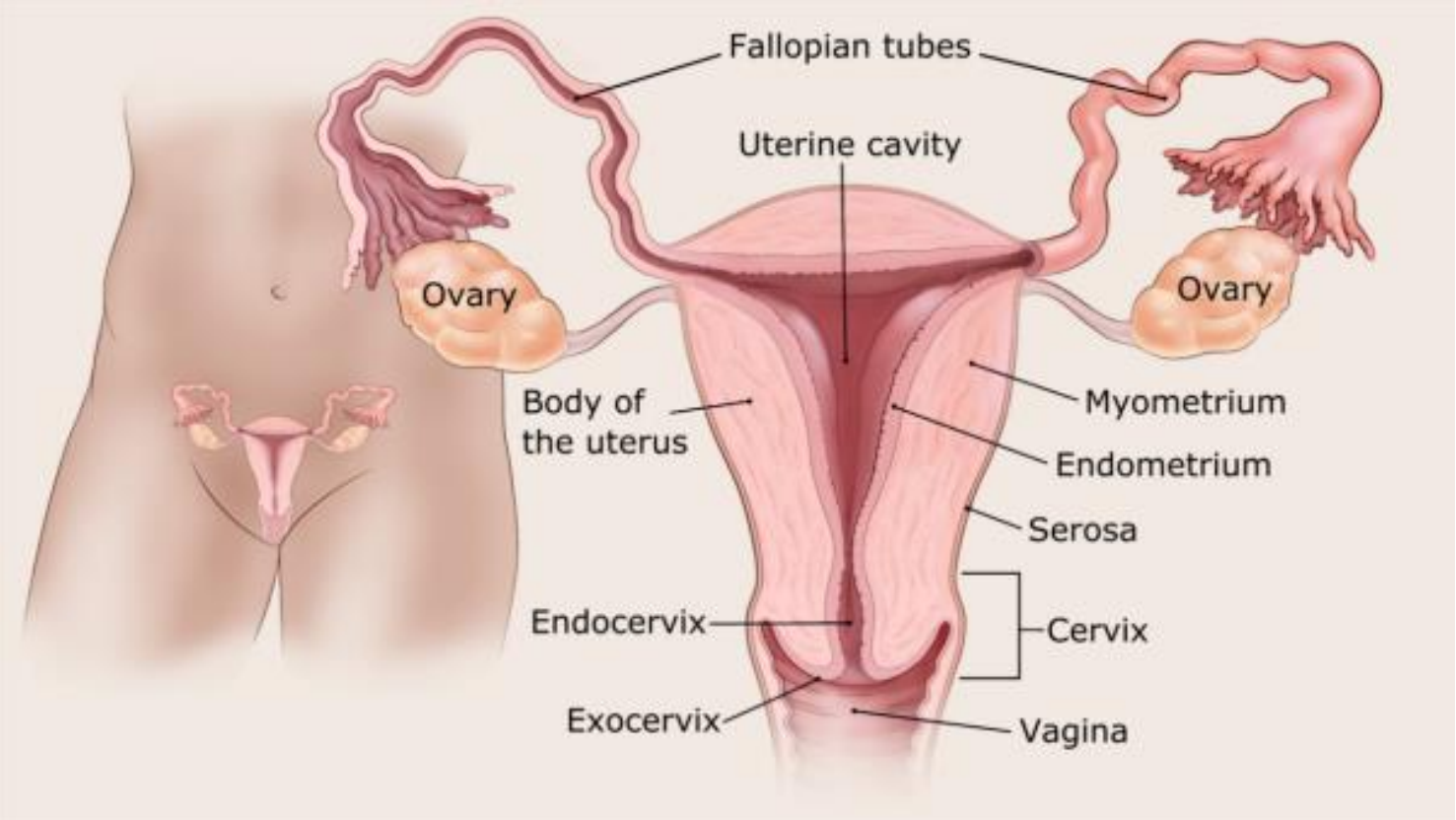
## 利益相反

- Nothing to disclose

  開示すべき利益相反なし

# Outline 今日のお話

1. General aspect 一般的事項
   - Symptoms, diagnosis, screening, prevention 症状・診断 検診・予防
   - Incidence, genetics 頻度、遺伝
2. Treatment 治療
   - Surgery 手術
   - Lymph node dissection issue リンパ節郭清の問題
   - Preservation of ovary, uterus 卵巣、子宮の温存
   - Adjuvant treatment & follow-up 術後補助療法・フォローアップ
   - Recent advances 最近の進歩




Carcinoma　がん

最も多いのは上皮から発生するタイプ

- Originates from epithelial tissue, the most common type
- Endometrioid adenocarcinoma (>80%), Non-endometrioid carcinoma (~10%)
  類内膜腺癌 (>80%)、非類内膜腺癌 (10%以下)

Sarcoma　肉腫

- Originates in muscle or connective tissue　筋肉、結合組織から発生

https://www.cancer.org/cancer/uterine-sarcoma/about/what-is-uterine-sarcoma.html

# Clinical symptoms
## 自覚症状

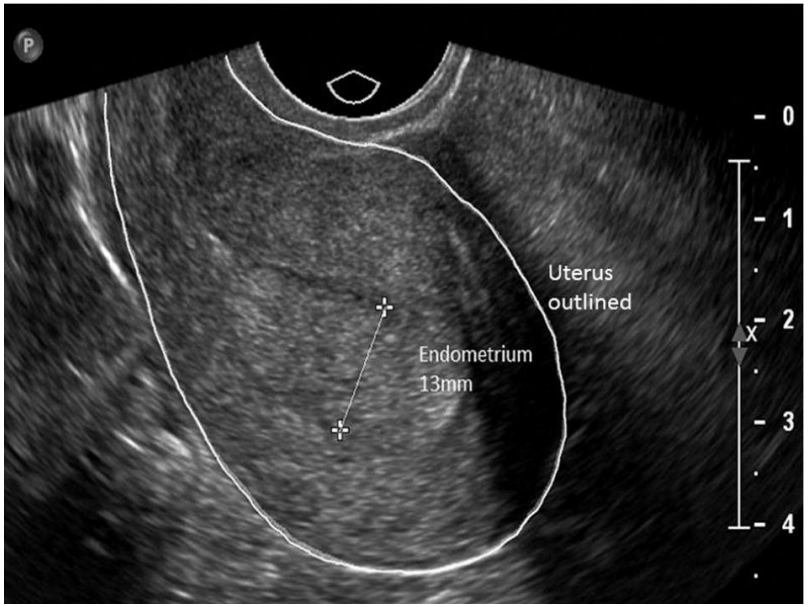
- Abnormal vaginal bleeding: the most common warning sign, ~90% 不正出血：最も多い症状、約90%
  - Any bleeding after menopause 閉経後の出血
  - irregular or heavy vaginal bleeding in younger women (before menopause) 月経不順、過多月経

→ an opportunity for early diagnosis & treatment
早期発見・早期治療開始のきっかけ

- Pelvic pressure or discomfort 骨盤圧迫感、不快感
  - Indicative of uterine enlargement or extrauterine disease spread子宮の増大や病巣の子宮外への進展を示唆
- Asymptomatic: less than 5% 症状がないのは5%未満

# Tests for endometrial cancer

## 子宮体癌の検査




**Trans-vaginal ultrasound**

経膣超音波

**Dilation and curettage (D&C)**

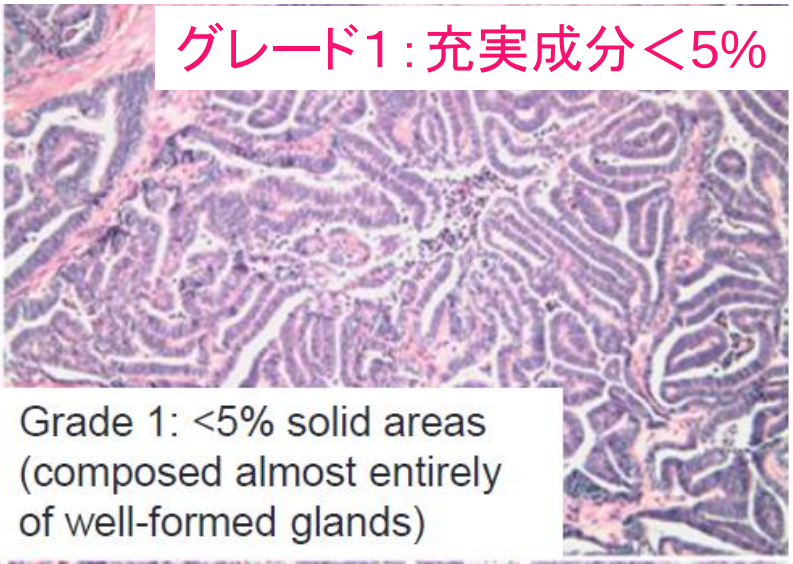
内膜掻爬

# Endometrioid adenocarcinoma

## 類内膜腺癌

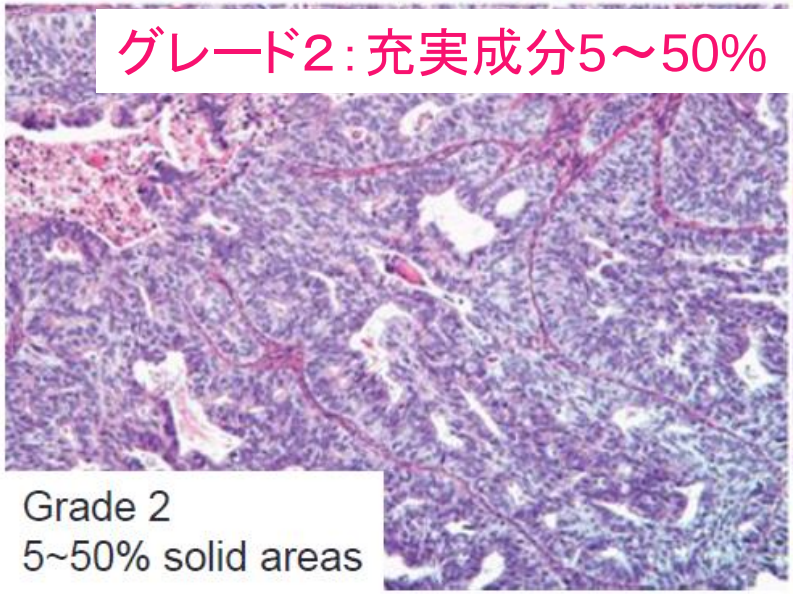
Histologic grading of endometrioid carcinomas
- *3-step grading system*

類内膜癌の組織学的分類
ー分化度により3段階に分類



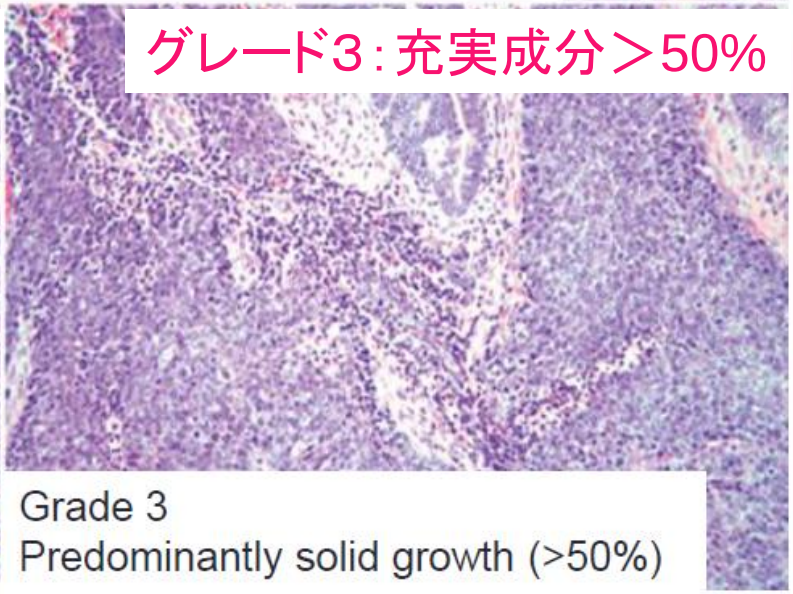
グレード1：充実成分＜5%

Grade 1: <5% solid areas
(composed almost entirely of well-formed glands)



グレード2：充実成分5～50%

Grade 2
5~50% solid areas



グレード3：充実成分＞50%

Grade 3
Predominantly solid growth (>50%)

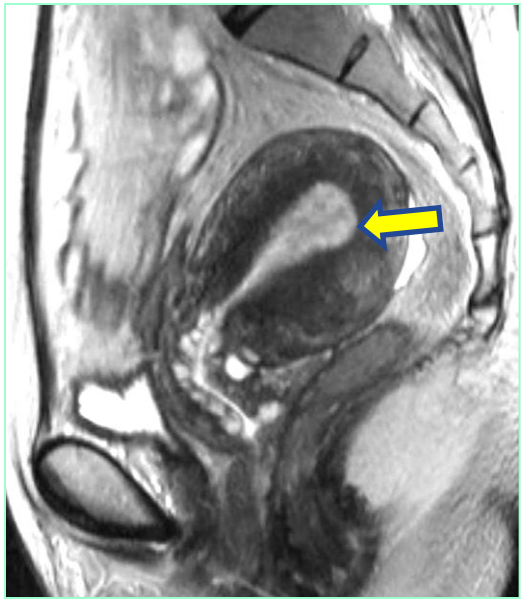
# Tests to look for cancer spread
## 癌の広がりを調べる検査

- To define disease extent and discover the other combined conditions 癌の広がりと他の併存症を調べる
  - Pelvis CT or MR imaging:
    - Depth of myometrial invasion
    - Lymph node evaluation

    骨盤部CTやMRI
    - 子宮筋層への浸潤の深さ
    - リンパ節の評価
  - Chest CT, PET/CT
  - CA-125*
  - Mammography*

胸部CT・PET

マンモグラフィー



# Risk factors リスク因子

- Prolonged exposure to the estrogen without adequate opposition from the progesterone hormone
  - external sources: prescribed estrogen or tamoxifen
  - internal sources: obesity

  相対的なエストロゲンへの長期暴露
  - エストロゲン製剤、タモキシフェン
  - 肥満
- Irregular menstrual cycles, and infertility due to ovulatory dysfunction or polycystic ovarian syndrome
  月経不順、卵巣機能不全による不妊、多嚢胞性卵胞症候群
- Early onset of menses, late menopause, never giving birth, as well as DM and hypertension
  早い初潮、遅い閉経、出産経験がない、糖尿病、高血圧
- Strong family history of endometrial or colon cancer (Lynch syndrome)

  子宮体癌・大腸癌の濃厚な家族歴（リンチ症候群）

# Screening
## 検診

- In the absence of signs of abnormal bleeding, there are no routine screening tests for uterine cancer.

  不正出血がなければ、子宮体癌に有効な検診はない。

# Prevention 予防

- Regular exercise, eating a balanced plant-based diet and maintaining a healthy weight
  適度な運動、バランスの良い食事で健康的な体重を維持
- Chemoprevention with oral pill or IUD
  ピルや子宮内避妊具による予防
- 2~5% of endometrial cancer are familial
  子宮体癌の2−5%は家族性に発症する
  - Lynch syndrome: family members with colon, endometrial, ovarian, and other cancers リンチ症候群：大腸癌、子宮体癌、卵巣癌などの家族歴
  - Genetic counseling and even testing 遺伝相談、遺伝子検査
  - Screening: endometrial biopsy and pelvic ultrasound 内膜細胞診、超音波
  - Chemoprevention: oral pill 薬による予防：経口ピル
  - Prophylactic surgery: hysterectomy and oophorectomy
    手術による予防：子宮全摘、卵巣切除

# Lynch syndrome
## リンチ症候群

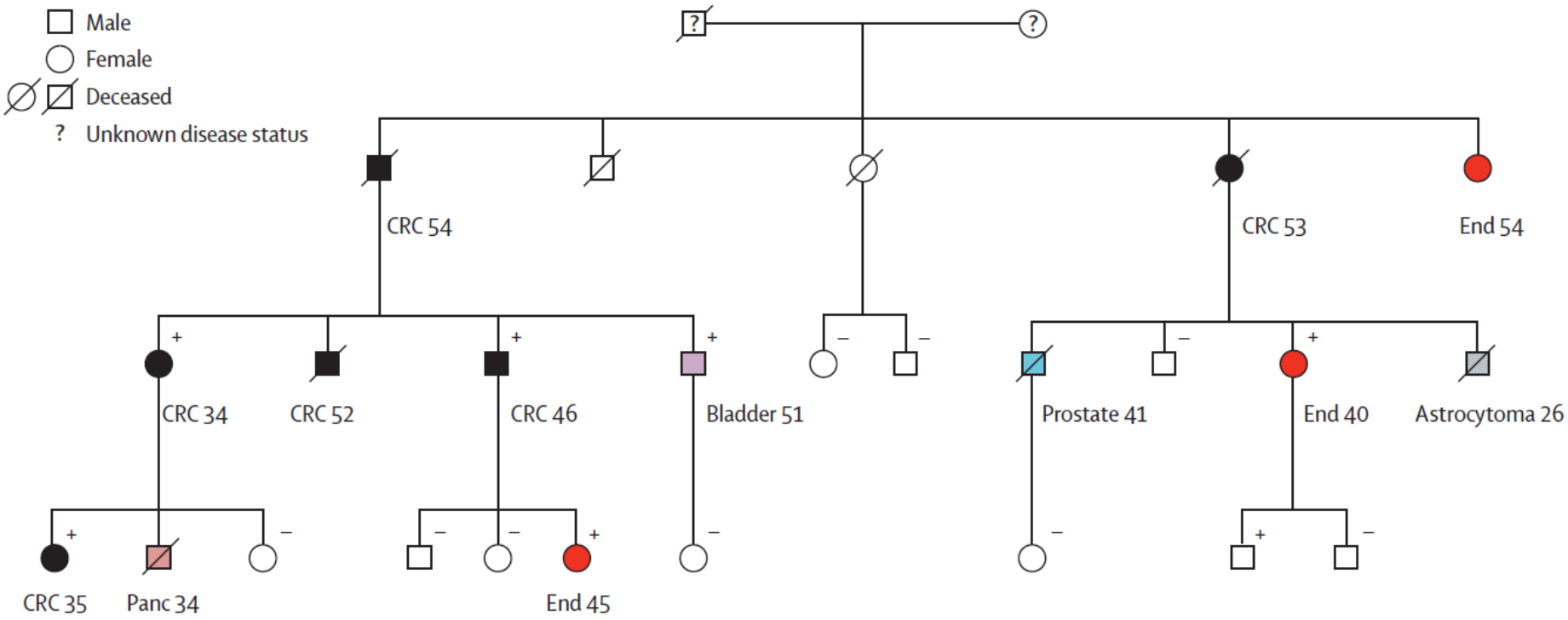
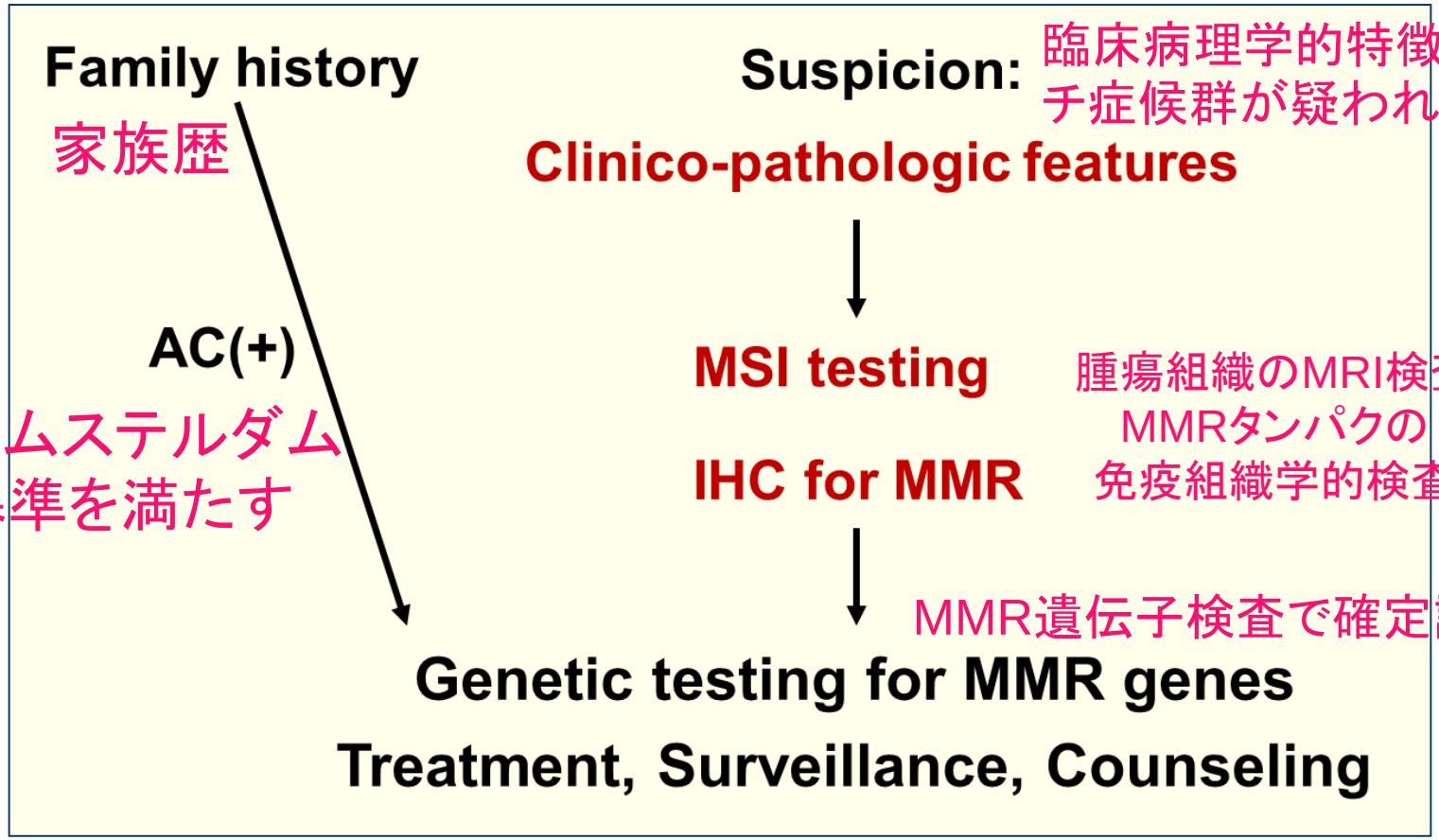



*Figure 2:* **Pedigree of a family with Lynch syndrome (*MSH2* mutation)**
+=proven mutation carrier. –=non-mutation carrier. CRC=colorectal cancer. Bladder=bladder cancer. End=endometrial cancer. Panc=pancreatic cancer. Prostate=prostate cancer. Numbers after tumour type refer to age at diagnosis. Not all relatives chose to have genetic testing.

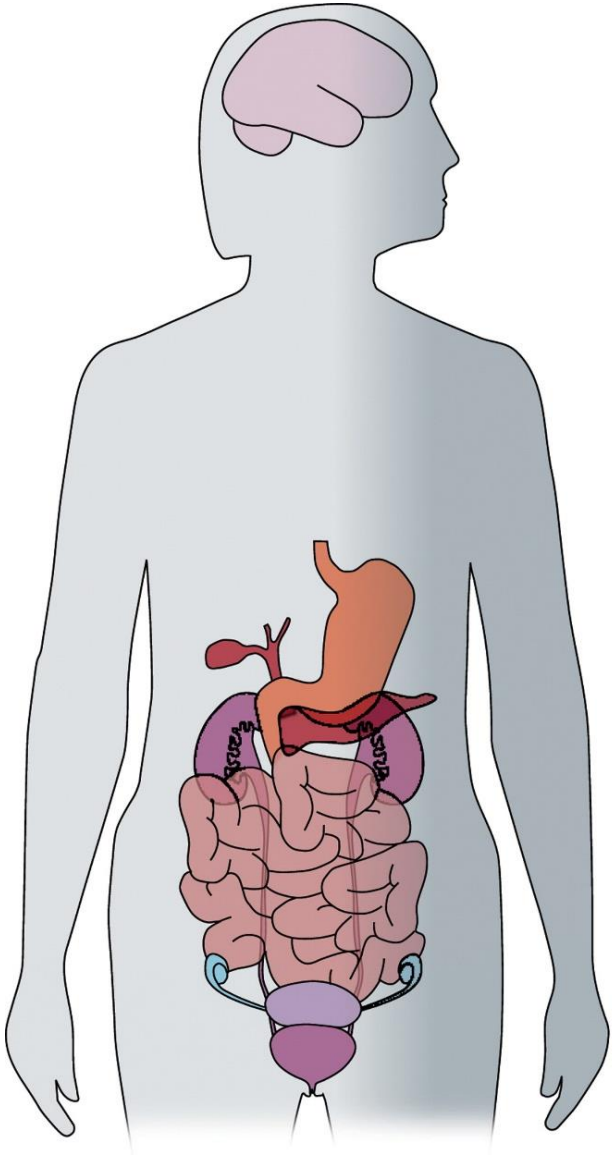
Lancet Oncol 2009;10:400-8

# Clinical diagnosis of Lynch syndrome (HNPCC): Limitations

## リンチ症候群(HNPCC)の臨床診断

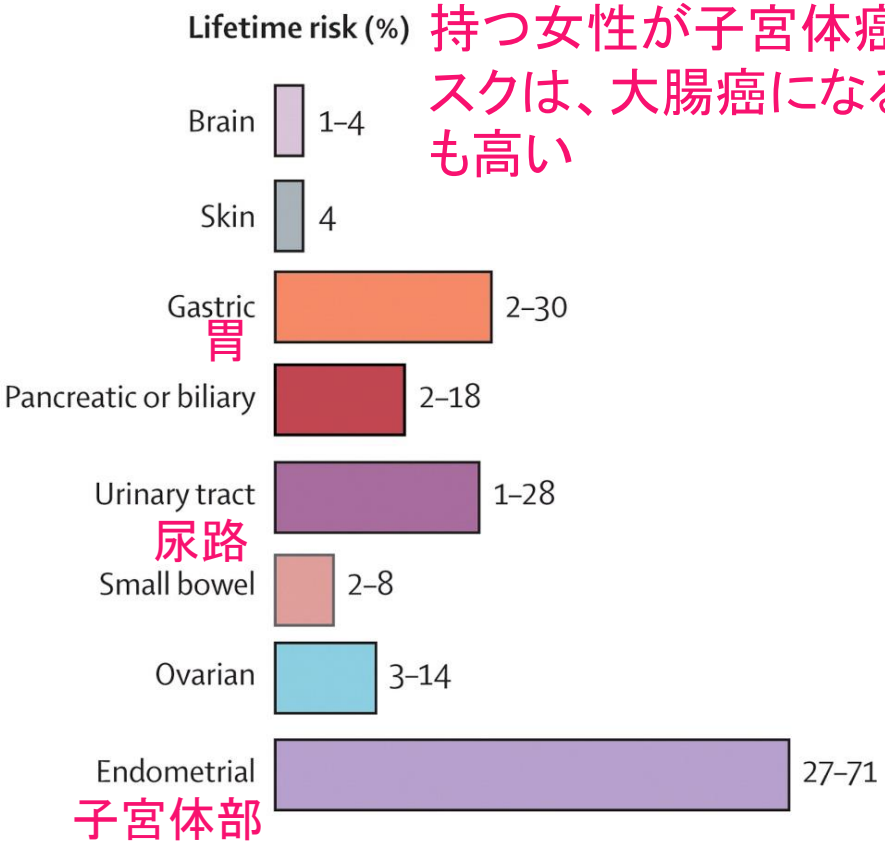



AC, Amsterdam criteria; MSI, microsatellite instability; IHC, Immunohistochemistry; MMR, mismatch repair



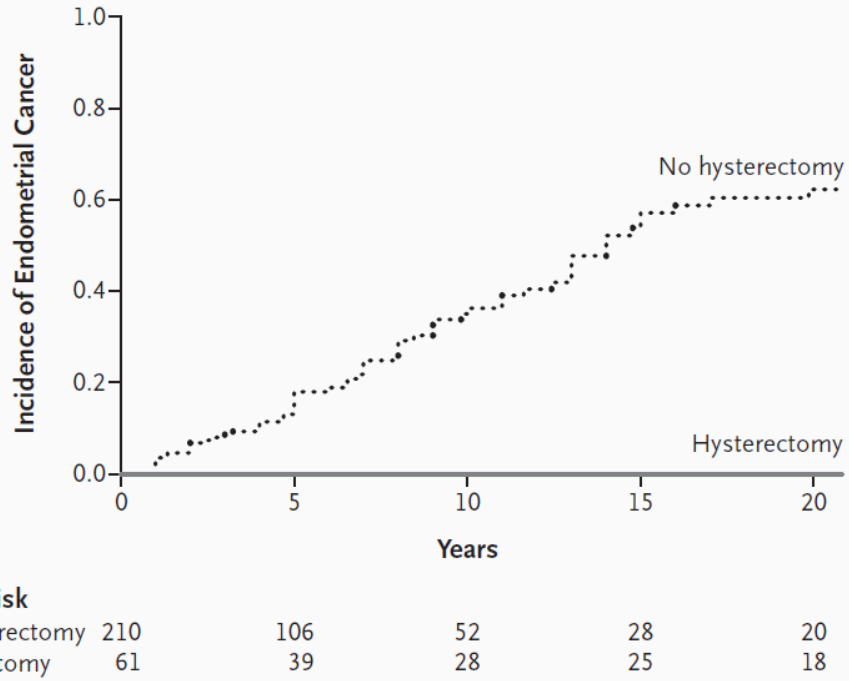
For women with a genetic predisposition for Lynch syndrome, lifetime risk of endometrial cancer is higher than that of colorectal cancer.

リンチ症候群の遺伝子変異を持つ女性が子宮体癌になるリスクは、大腸癌になるリスクよりも高い




Lancet Oncol 2009;10:400-8

# Prophylactic surgery and screening
## 予防的手術とスクリーニング




| No. at Risk | | | | | |
|---|---|---|---|---|---|
| No hysterectomy | 210 | 106 | 52 | 28 | 20 |
| Hysterectomy | 61 | 39 | 28 | 25 | 18 |

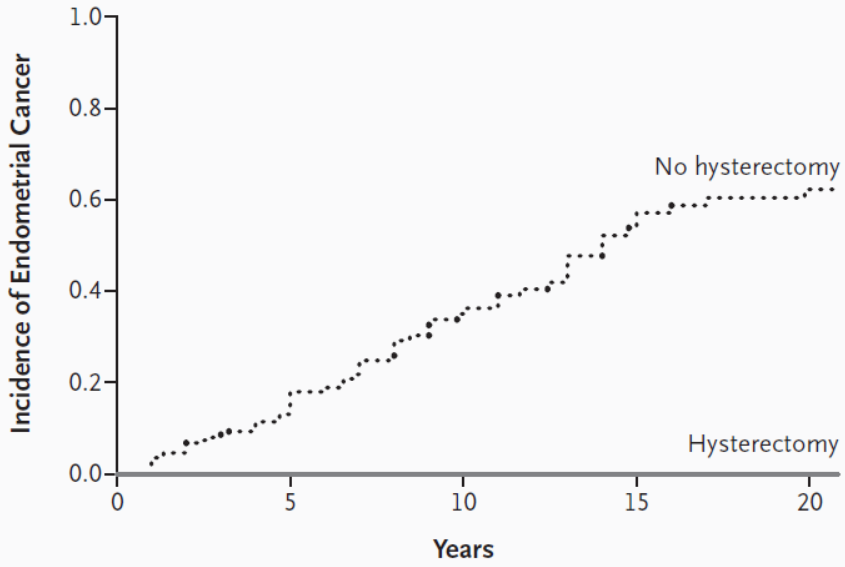
**Figure 1. Cumulative Incidence of Endometrial Cancer among Women with the Lynch Syndrome Who Underwent Prophylactic Hysterectomy and Those Who Did Not.**

1. Hysterectomy and bilateral salpingo-oophorectomy should be offered to women who are known Lynch syndrome (LS) mutation carriers and who have finished child bearing, optimally at age 40~45 years.

40−45歳の出産を終えたリンチ症候群の遺伝子変異を持つ女性に、子宮全摘・両側付属器摘出を提供してするべきである。

N Engl J Med 2006;354:261-9

# Prophylactic surgery and screening
# 予防的手術とスクリーニング




| No. at Risk | | | | | |
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**Figure 1. Cumulative Incidence of Endometrial Cancer among Women with the Lynch Syndrome Who Underwent Prophylactic Hysterectomy and Those Who Did Not.**

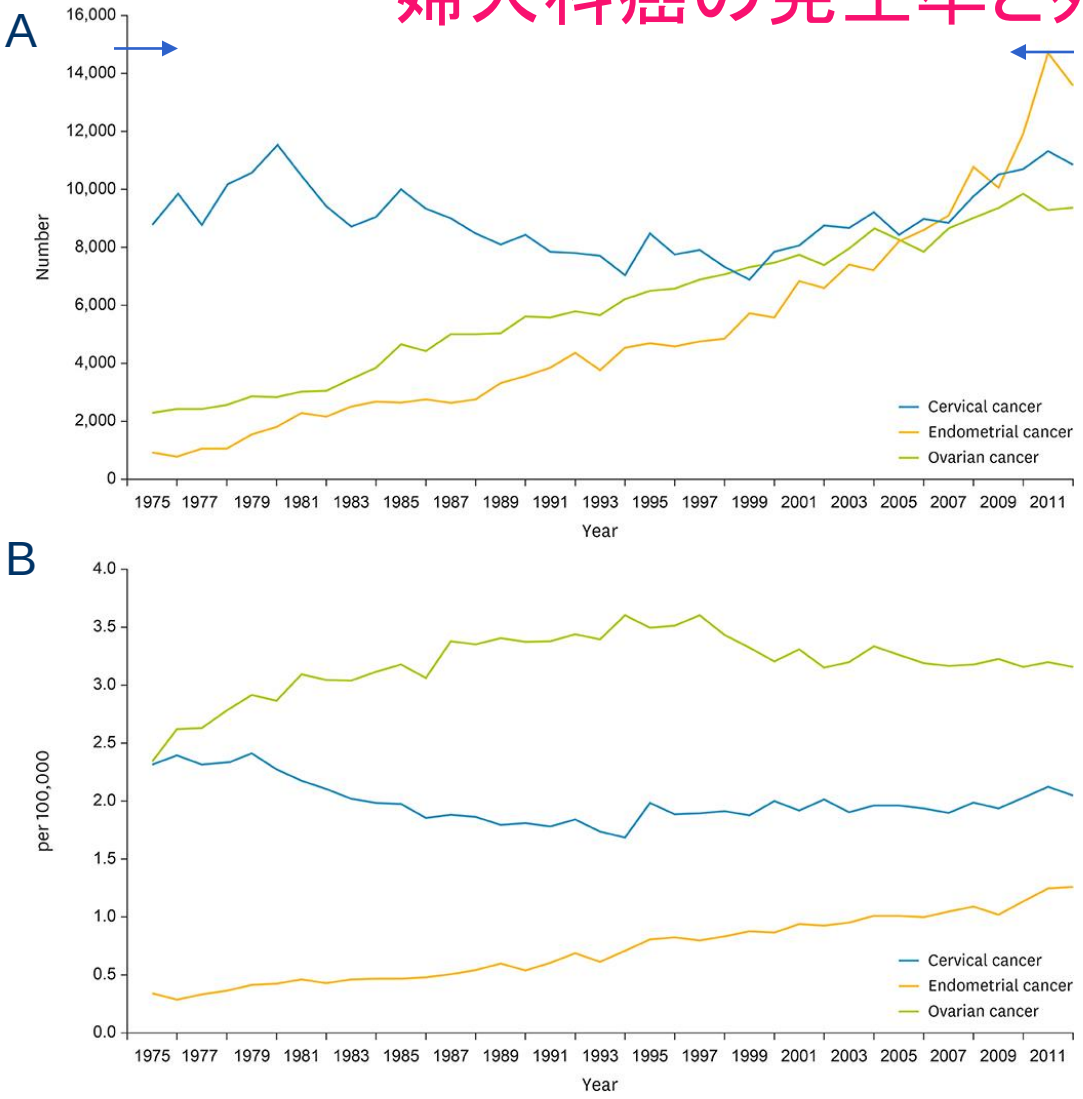
2. Screening for endometrial cancer (EC) and ovarian cancer should be offered to women at risk for or affected with LS by endometrial biopsy and transvaginal ultrasound annually, starting at age 30 to 35 years before undergoing surgery or if surgery is deferred.

30−35歳のリンチ症候群によるリスクのある女性に、子宮内膜細胞診と経膣超音波により体癌・卵巣癌のスクリーニングを行うべきである。

N Engl J Med 2006;354:261-9

# Incidence and mortality of gynecologic malignancies in Japan

## 婦人科癌の発生率と死亡率




A. Incidence

発生率

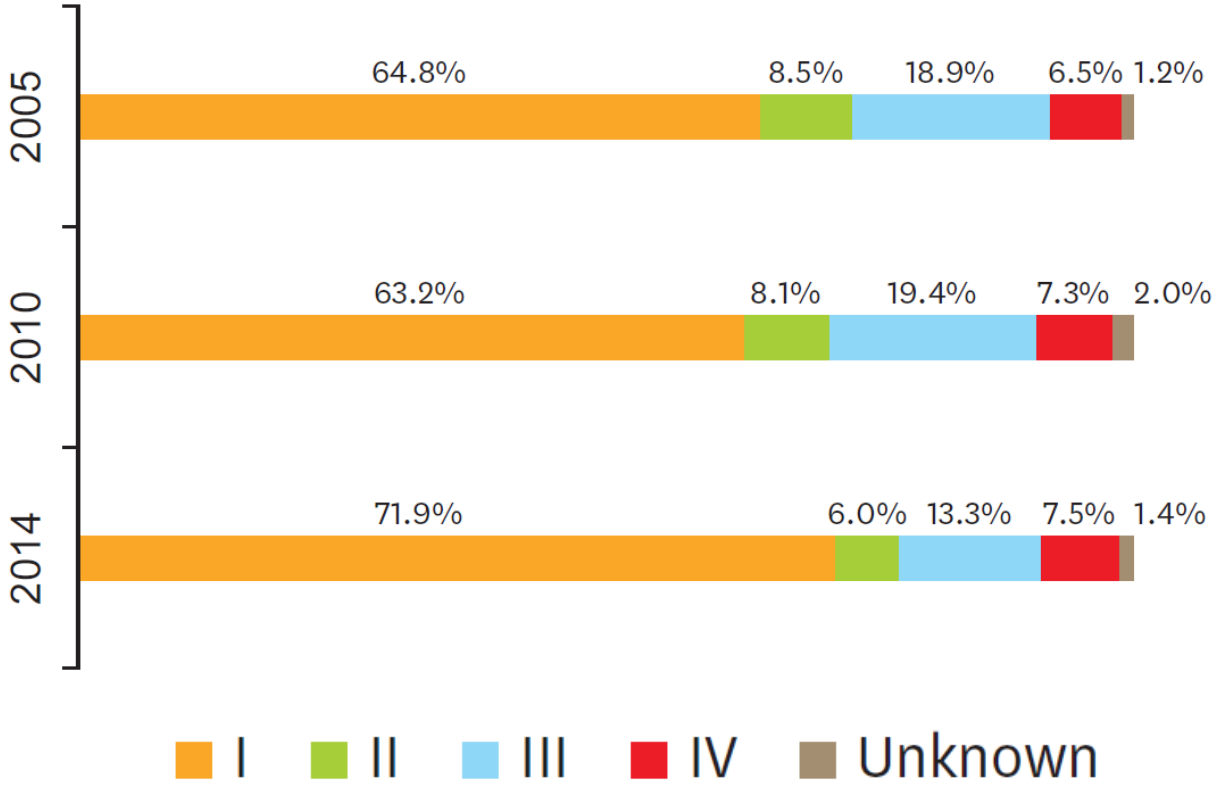
B. Age-adjusted mortality

年齢調整死亡率

J Gynecol Oncol 2017;28:e32

# Distribution of FIGO stage in endometrial cancer in Japan

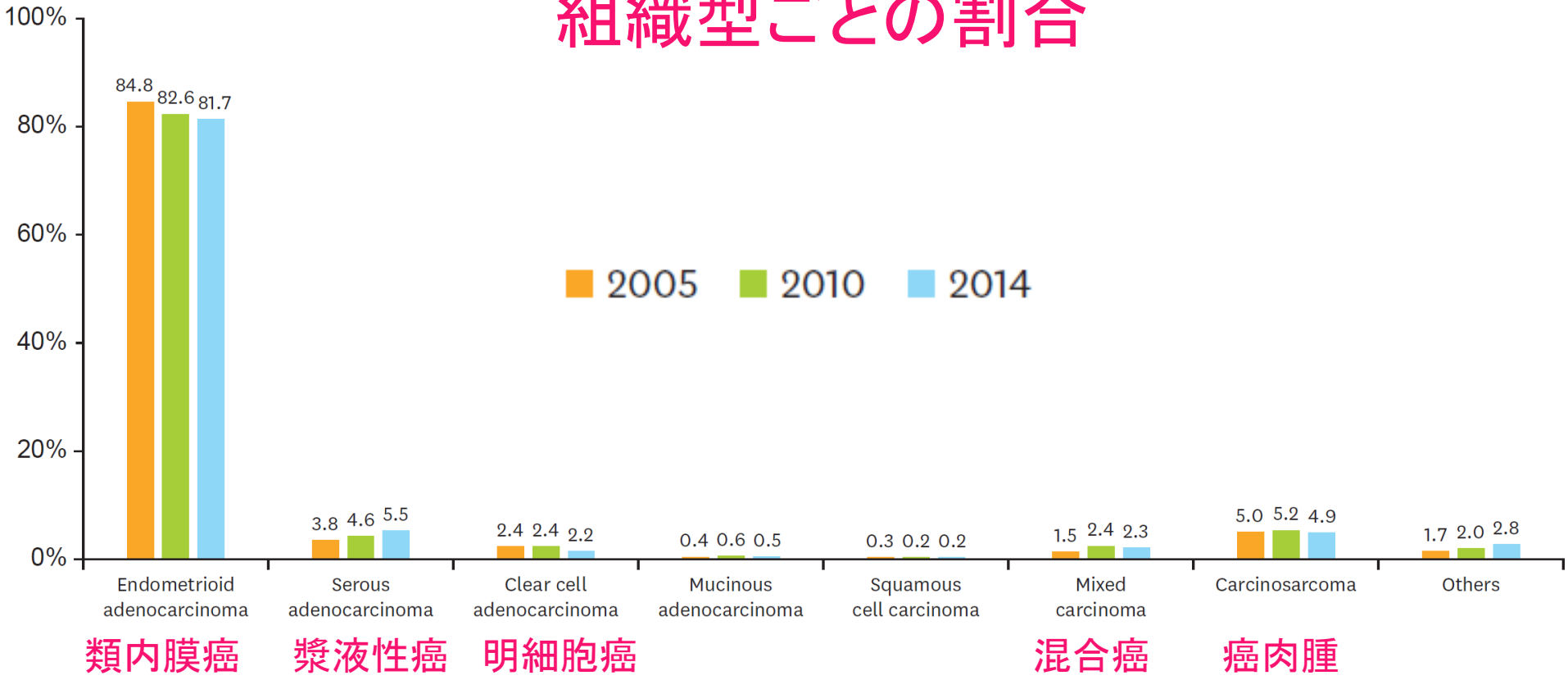
## 進行期ごとの割合




**Clinical statistics of gynecologic cancers in Japan.** J Gynecol Oncol 2017;28:e32

# Distribution of histological types in endometrial cancer in Japan

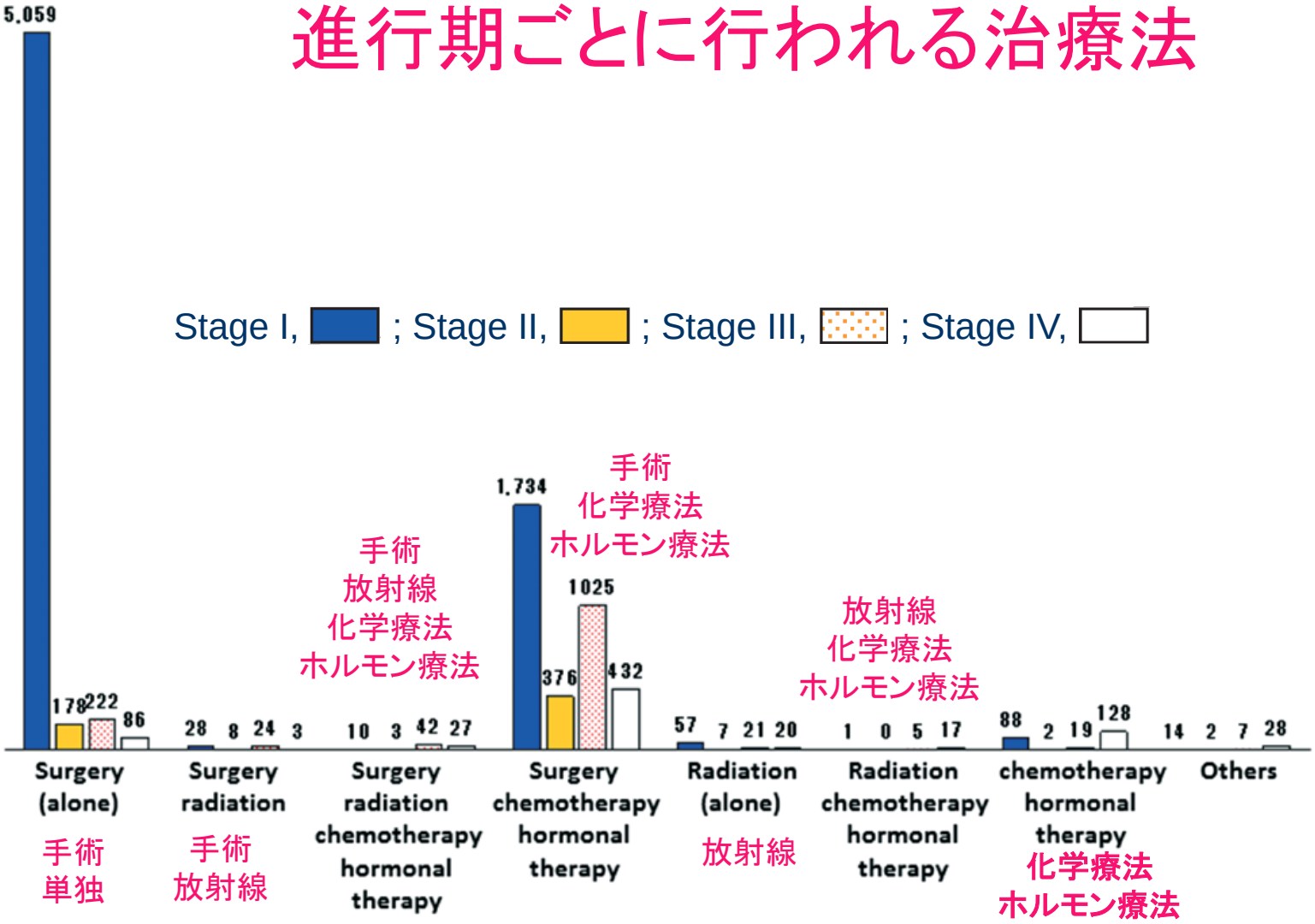
## 組織型ごとの割合




**Clinical statistics of gynecologic cancers in Japan.** J Gynecol Oncol 2017;28:e32

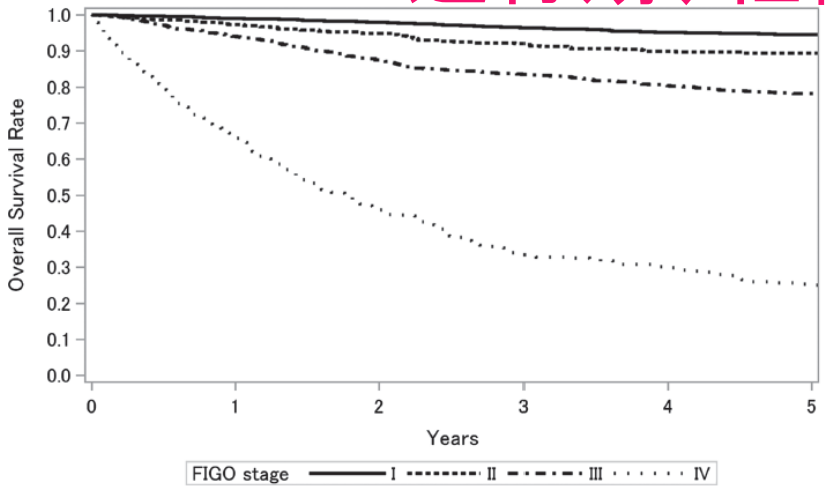
# Distribution of treatment methods by surgical stages for patients with endometrial cancer in 2014 in Japan

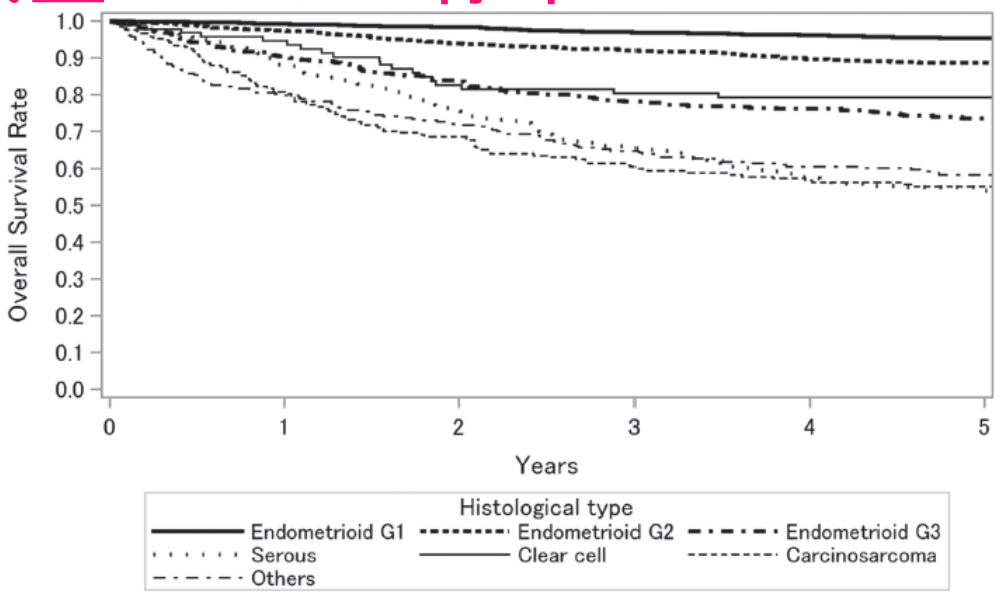
## 進行期ごとに行われる治療法




Annual Report of the Committee on Gynecologic Oncology, Japan Society of Obstetrics and Gynecology: Patient Annual Report for 2014 and Treatment Annual Report for 2009. J Obstet Gynaecol Res 2017;43:1667-77

# Survival according to surgical stage & histologic types
## : report on patients treated in 2009 in Japan
## 進行期、組織型ごとの生存率




5-year Overall Survival (OS) rates

stage IA, 97.1%;
stage IB, 95.5%;
stage IC, 88.9%;
stage II, 89.4%

5年生存率 94.6%

5-year OS rates 5年生存率

Endometrioid G1, 95.4%; G2, 88.7%; G3 73.6%

Annual Report of the Committee on Gynecologic Oncology, Japan Society of Obstetrics and Gynecology: Patient Annual Report for 2014 and *Treatment Annual Report for 2009*. J Obstet Gynaecol Res 2017;43:1667-77

# Status of endometrial cancer in Korea

## 韓国での現況

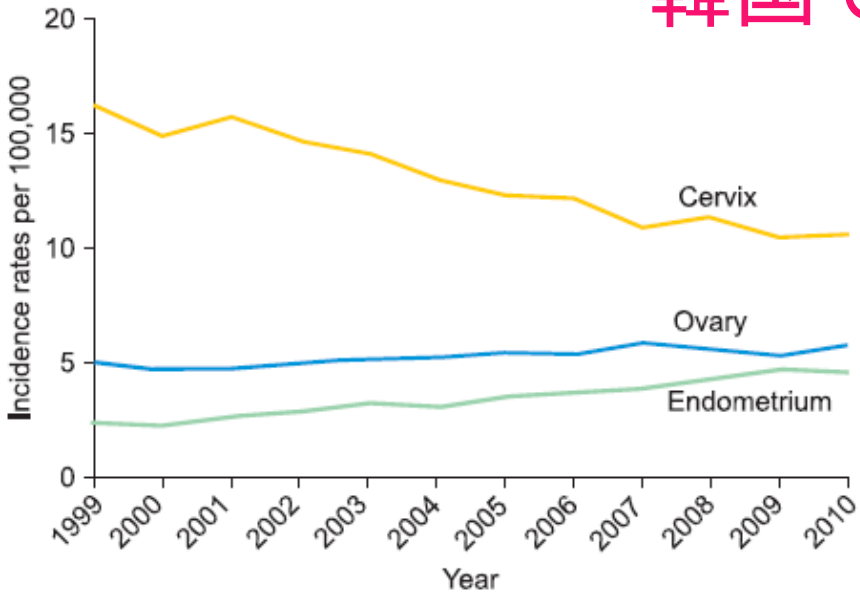



**Fig. 1.** Age-standardized incidence curves of cervical, endometrial, and ovarian cancer, the Korea Central Cancer Registry, 1999–2010.

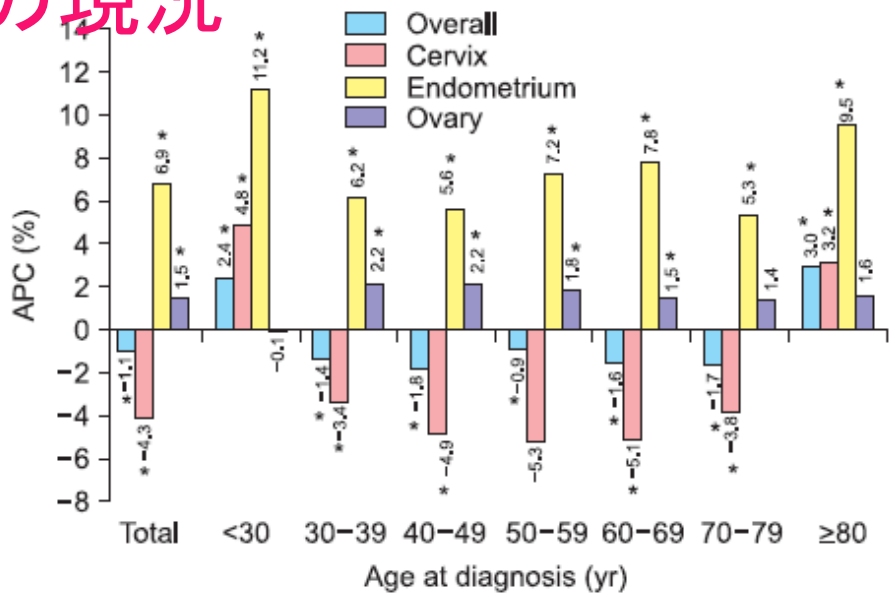



**Fig. 2.** Annual percent changes (APCs) in the incidences of cervical, endometrial, and ovarian cancer according to age group, 1999–2010. Data extraction was based on the definition of the International Classification of Diseases, 10th edition (ICD-10): cervix (C53), endometrium (C54.1), and ovary (C56). *P<0.05.

- In 2017, uterine cancer is estimated to comprise 2.5% (2,578) of all new female cancers.
- Uterine cancer has been definitively increasing (APC, 6.9% during 1999~2010), especially in females <30 years old (APC, 11.2%) and in females ≥80 years old (APC, 9.5%).
- *2017年、子宮癌は新規の女性の癌の約2.5%（2578人）を占めると推測されている*
- *特に30才未満の女性と80才以上の高齢女性において子宮癌は増加している*


Lim MC, et al. J Gynecol Oncol. 2013;24:298–302.
Jung KW, et al. Cancer Res Treat. 2017;49:306–12.

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   - Preservation of ovary, uterus 卵巣、子宮の温存
   - Adjuvant treatment & follow-up 術後補助療法・フォローアップ
   - Recent advances 最近の話題

# Treatment option overview

- Five types of standard treatment are used:
  - Surgery
  - Radiation therapy
  - Chemotherapy
  - Hormone therapy
  - Biologic & immunotherapy agent

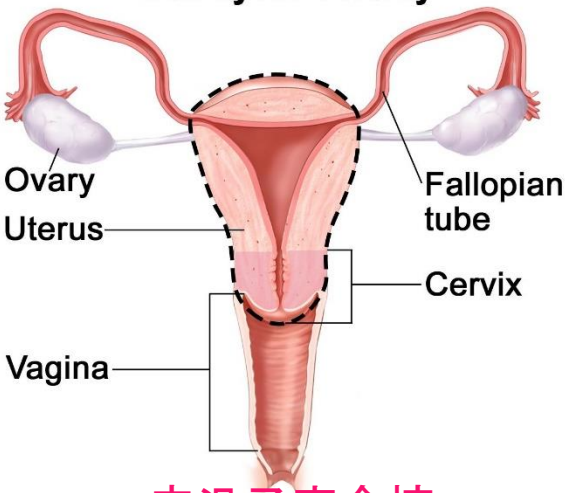
５大標準治療
- 手術
- 放射線治療
- 化学療法
- ホルモン治療
- 免疫療法

- New types of treatment are being tested in clinical trials

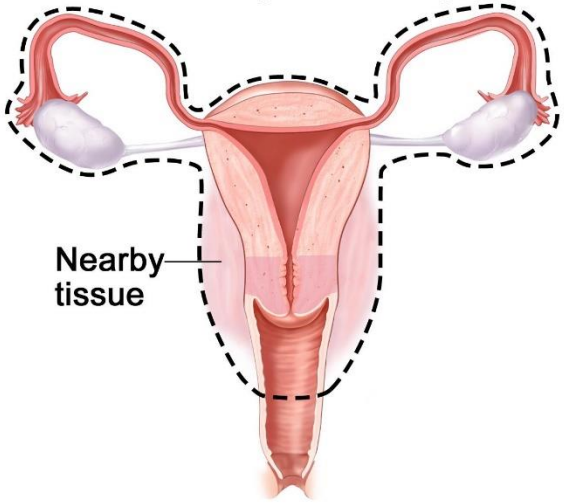
さらに新しい治療の臨床試験が進行中である

# Surgery 手術

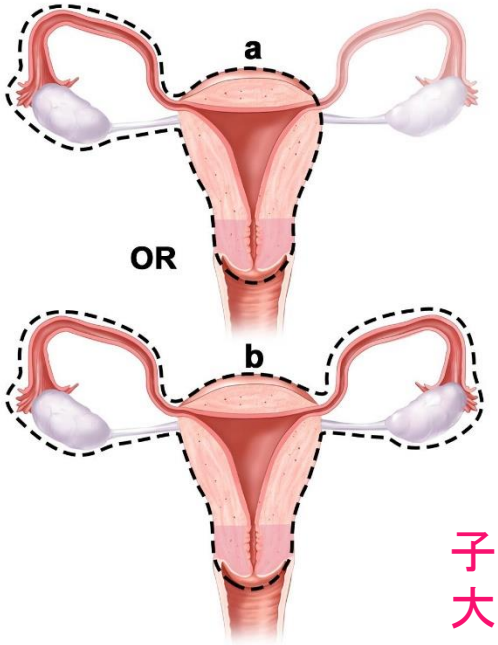
単純子宮全摘
Total hysterectomy




広汎子宮全摘
Radical hysterectomy

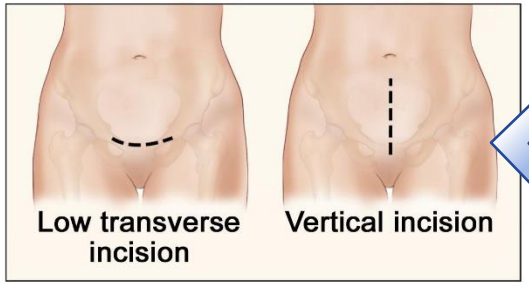



単純子宮全摘＋両側付属器切除
Total hysterectomy with salpingo-oophorectomy

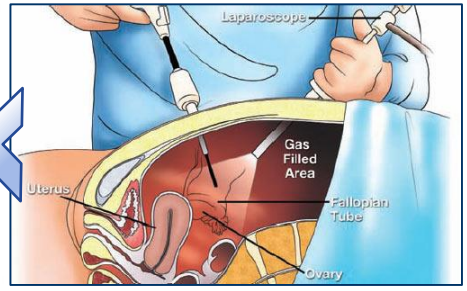



Removal of the uterus including cervix, fallopian tubes, ovaries, pelvic &/or para-aortic lymph nodes, & metastatic implants

子宮、卵管、卵巣、骨盤・傍大動脈リンパ節、播種病巣の摘出




横切開　縦切開

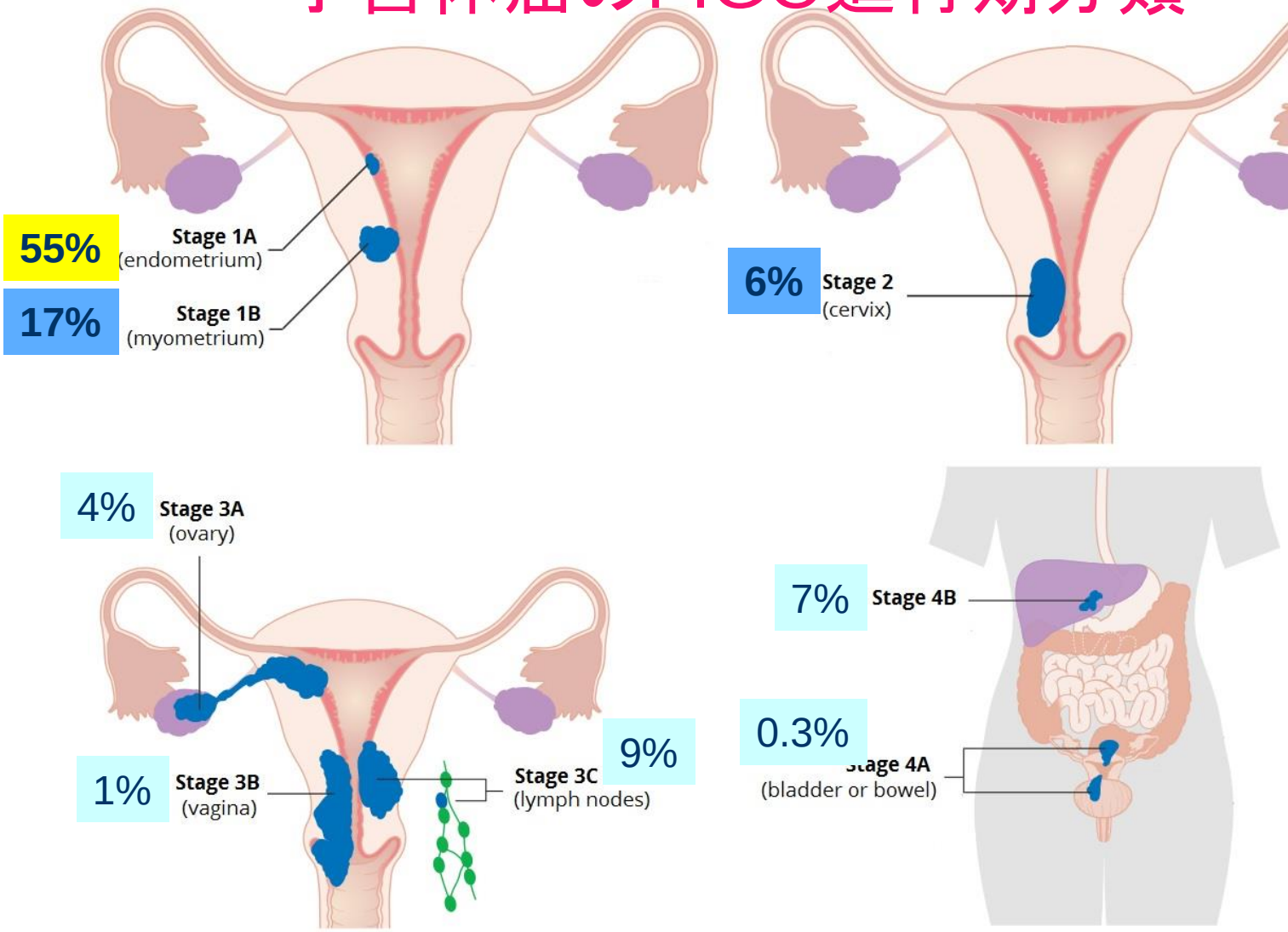



腹腔鏡下手術

https://www.cancer.gov/types/uterine/patient/endometrial-treatment-pdq; https://goo.gl/CYyB2M

# The FIGO stage of endometrial cancer

# 子宮体癌のFIGO進行期分類




**J Obstet Gynaecol Res 2017;43:1667-77;** http://teachmeobgyn.com/gynaecology/uterine/endometrial-cancer/#FIGO_Staging

# Minimally invasive surgery

## 低侵襲手術

公益社団法人
日本婦人科腫瘍学会
Japan Society of Gynecologic Oncology

子宮体がん治療ガイドライン2013年版

CQ 14

**腹腔鏡下手術は標準術式の一つとなり得るか？**

推奨

① 子宮内膜異型増殖症や病巣が子宮に限局し子宮頸部間質浸潤がないと予想される早期子宮体癌（Ⅰ期）に対しては，症例により腹腔鏡下手術の日常診療での実践も考慮される（グレードB）。

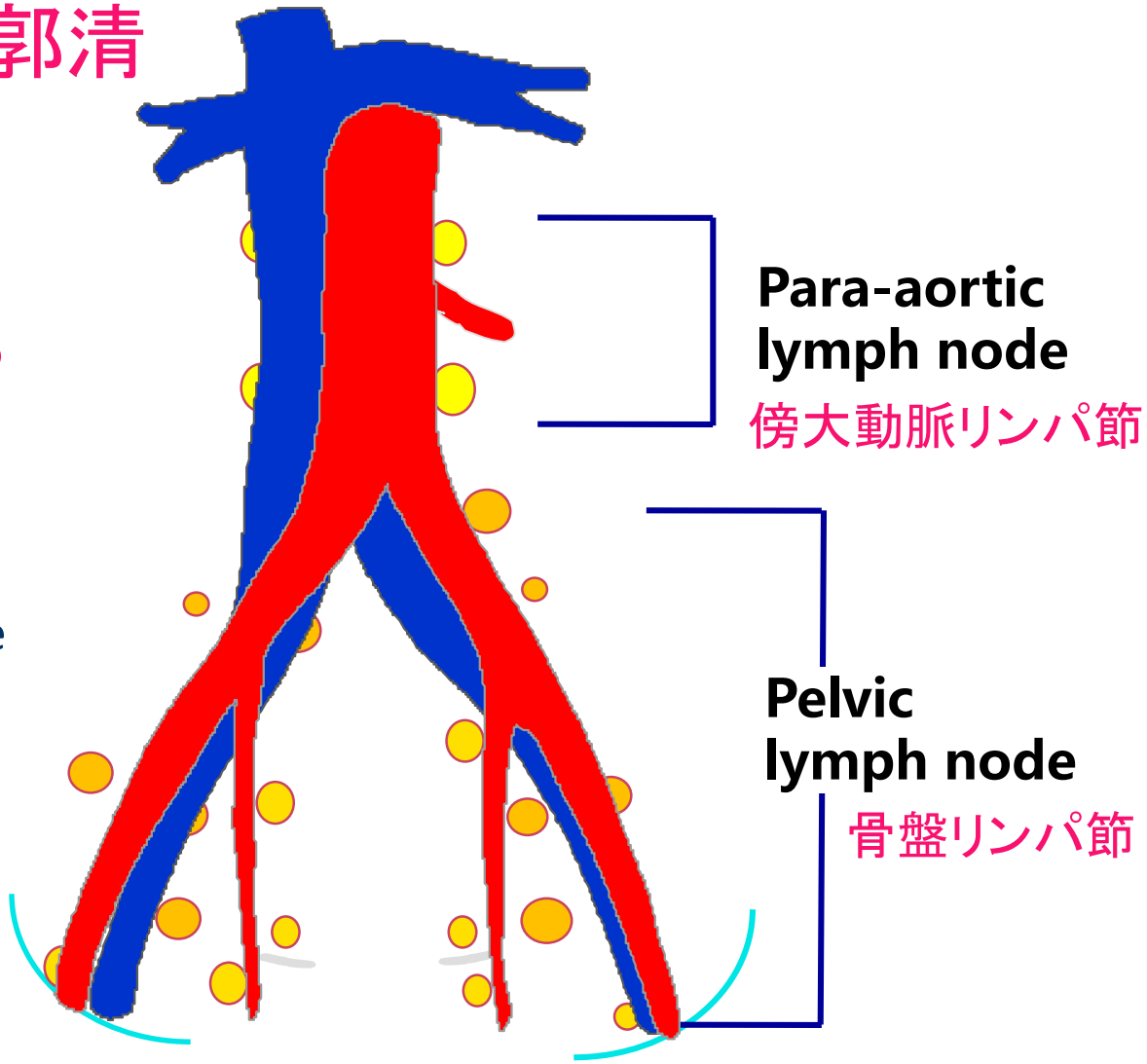
② 進行子宮体癌に対する腹腔鏡下手術は奨められない（グレードC2）。

- Laparoscopic surgery would be an option for the anticipated stage I disease but not in locally advanced stage disease.

# Lymph node dissection

## リンパ節郭清

- The role of LN removal: controversial
- リンパ節郭清の意義：まだ議論の余地がある
- Low-risk tumors (well differentiated [Grade 1] and <1/2 myometrial invasion) do not require full surgical staging.*
- 低リスク症例（高分化癌、筋層浸潤1/2未満）ではリンパ節郭清*は必要ない。

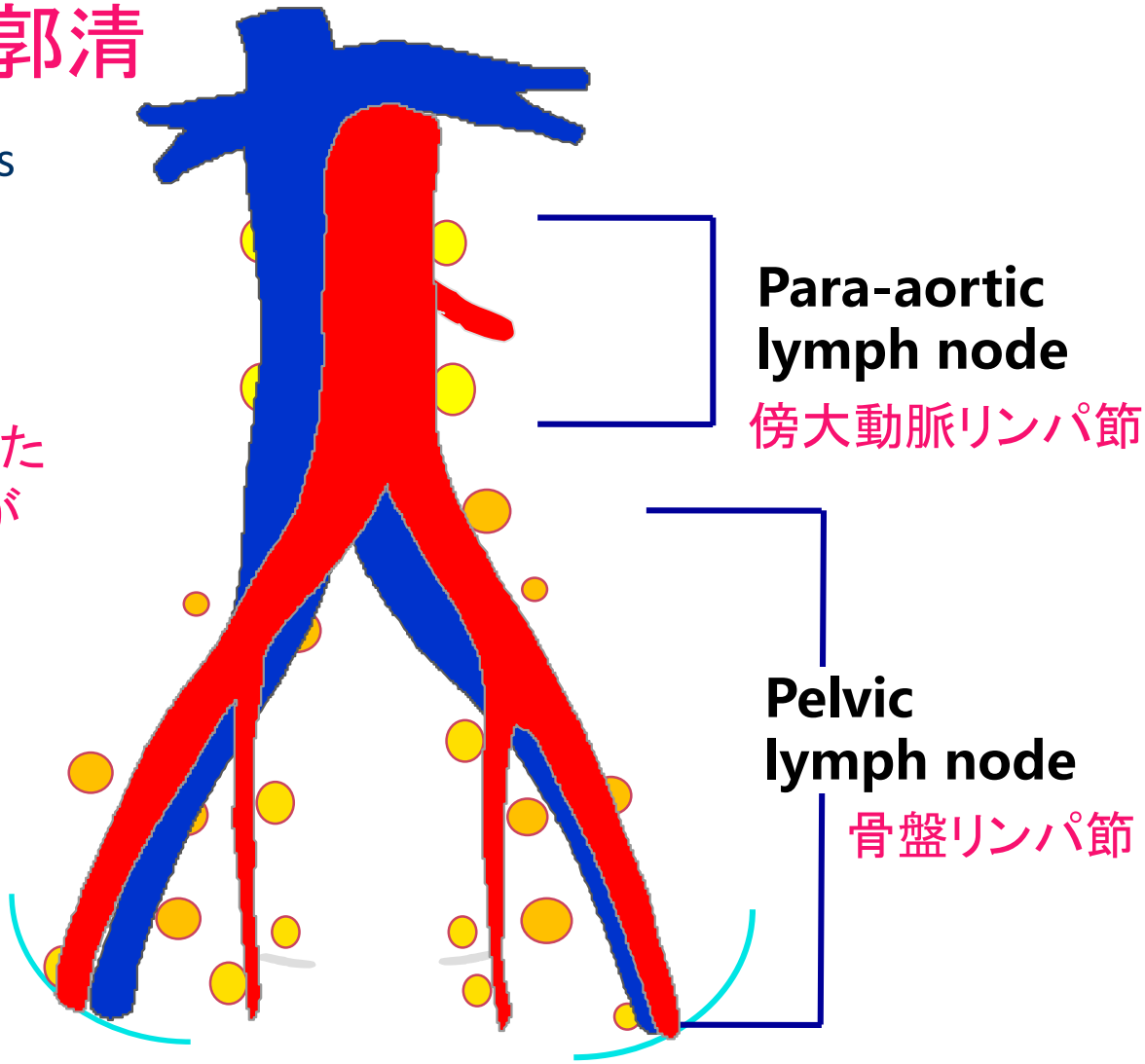



* **FIGO Cancer Report 2015.** Int J Gynaecol Obstet 2015;131 Suppl 2:S75; ** Stage IIIC

# Lymph node dissection

## リンパ節郭清

- If lymph nod metastases identified**, post-operative adjuvant therapy is needed.
- リンパ節転移**を認めた場合、術後補助治療が必要となる。




* **FIGO Cancer Report 2015.** Int J Gynaecol Obstet 2015;131 Suppl 2:S75; ** Stage IIIC

# Potential complications of LND

## リンパ節郭清による合併症

Lymph node dissection


https://en.wikipedia.org/wiki/Lymphedema

# KGOG 2014

Korean Gynecologic Oncology Group

JOURNAL OF CLINICAL ONCOLOGY ORIGINAL REPORT

子宮体癌低リスク群のリンパ節転移を術前に同定する

## Preoperative Identification of a Low-Risk Group for Lymph Node Metastasis in Endometrial Cancer: A Korean Gynecologic Oncology Group Study

*Sokbom Kang, Woo Dae Kang, Hyun Hoon Chung, Dae Hoon Jeong, Sang-Soo Seo, Jong-Min Lee, Jae-Kwan Lee, Jae Weon Kim, Seok-Mo Kim, Sang-Yoon Park, and Ki Tae Kim*

**CONCLUSION:**

Using MR imaging and serum CA-125 as criteria resulted in the accurate identification of a low-risk group for lymph node metastasis among patients with endometrial cancer.

MRIとCA125の測定による低リスク群のリンパ節転移の有無を、術前に高い精度で評価することができる

- MR imaging
  - Myometrial invasion < 50%
  - No suspicious lymph node involvement
  - No extension of disease beyond corpus
- CA-125 < 35 IU/ml

筋層浸潤＜1/2
腫大リンパ節なし
子宮外進展なし

www.ncbi.nlm.nih.gov/pubmed/22412131

Gynecologic Oncology 129 (2013) 33–37

Contents lists available at SciVerse ScienceDirect

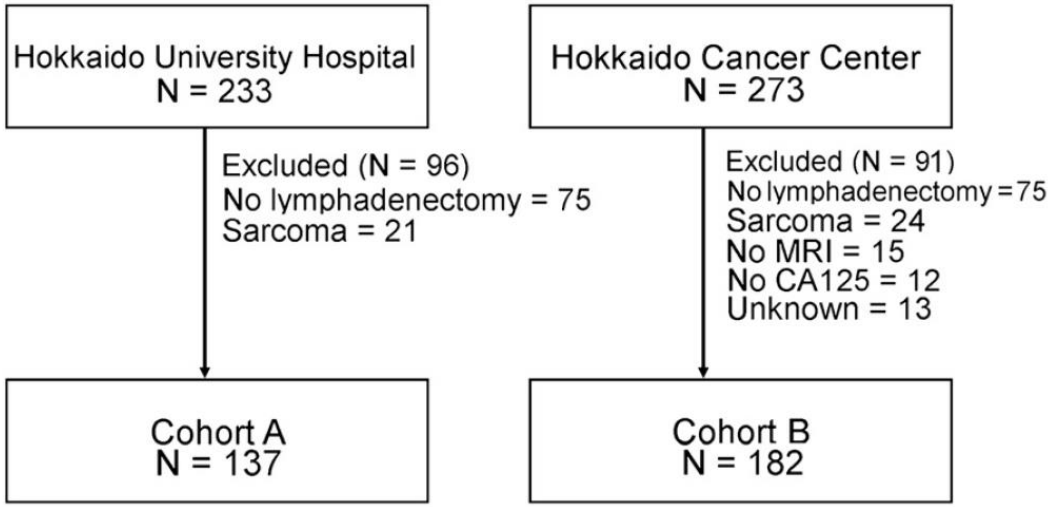
Gynecologic Oncology

journal homepage: www.elsevier.com/locate/ygyno

# A low-risk group for lymph node metastasis is accurately identified by Korean gynecologic oncology group criteria in two Japanese cohorts with endometrial cancer☆

**The KGOG low-risk criteria** accurately identified a low-risk group for LN metz with acceptable false negativity regardless of diverse clinical settings.

KGOG低リスク群基準は施設の差に関係なく、高い精度で術前の低リスク群のリンパ節転移を同定できる



# JCOG 1412

JCOG
Japan Clinical Oncology Group

## Randomized phase III trial to confirm survival effect of para-aortic lymphadenectomy for patients with endometrial cancer (SEPAL-P3)

子宮体癌の傍大動脈リンパ節郭清による生存率への影響を調査する第3相試験

**Objective;**

To prospectively investigate the survival effect of para-aortic lymph node dissection in endometrial cancer.

HOKKAIDO UNIVERSITY
Graduate School of Medicine
School of Medicine

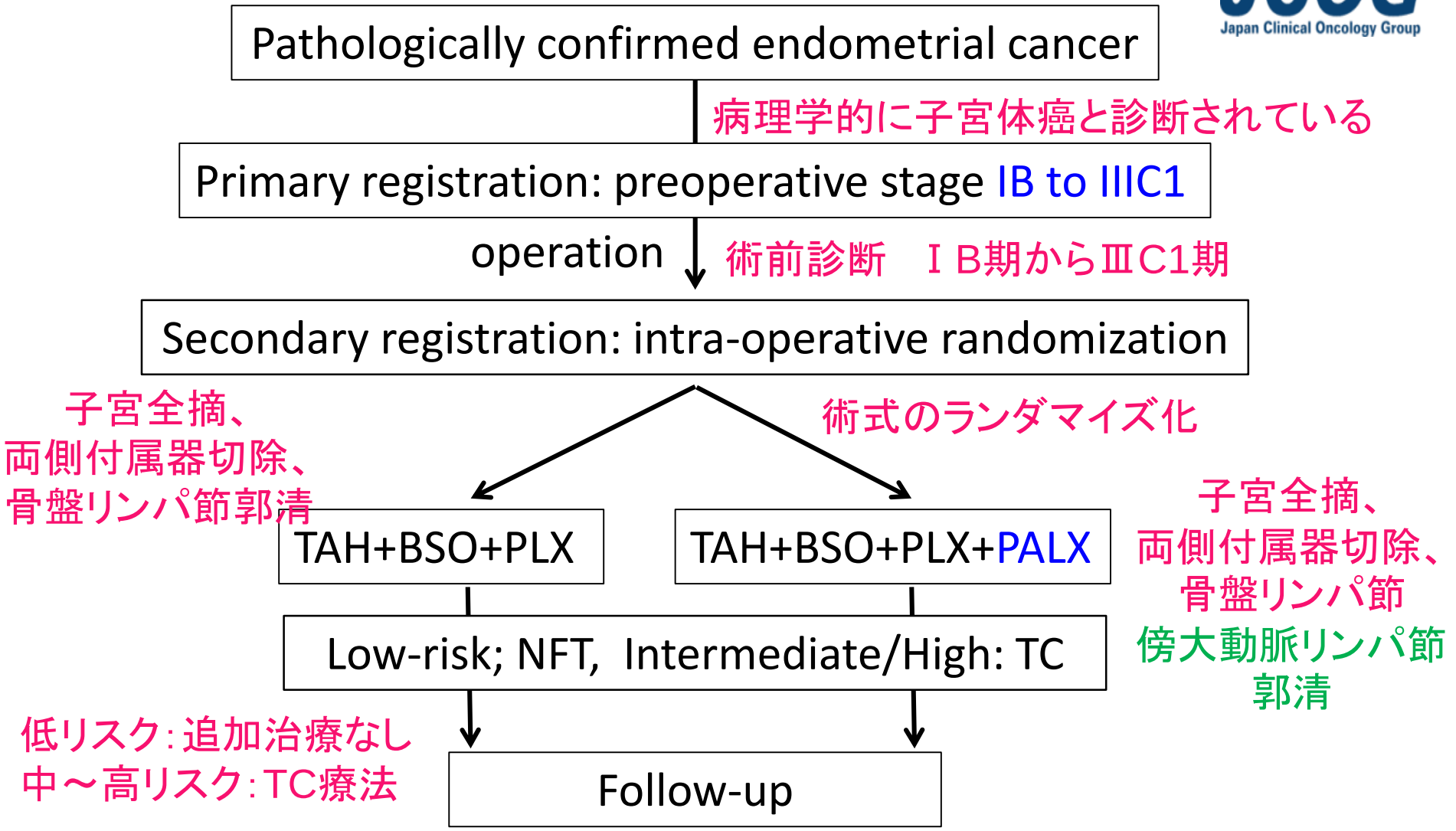
Professor **Hidemichi Watari**

**Primary endpoint;**

Overall survival

**Secondary endpoints;**

Progression-free survival, surgical factors(operation time, blood loss, transfusion), adverse events related to surgery, chemotherapy-related adverse events, recurrent sites/patterns



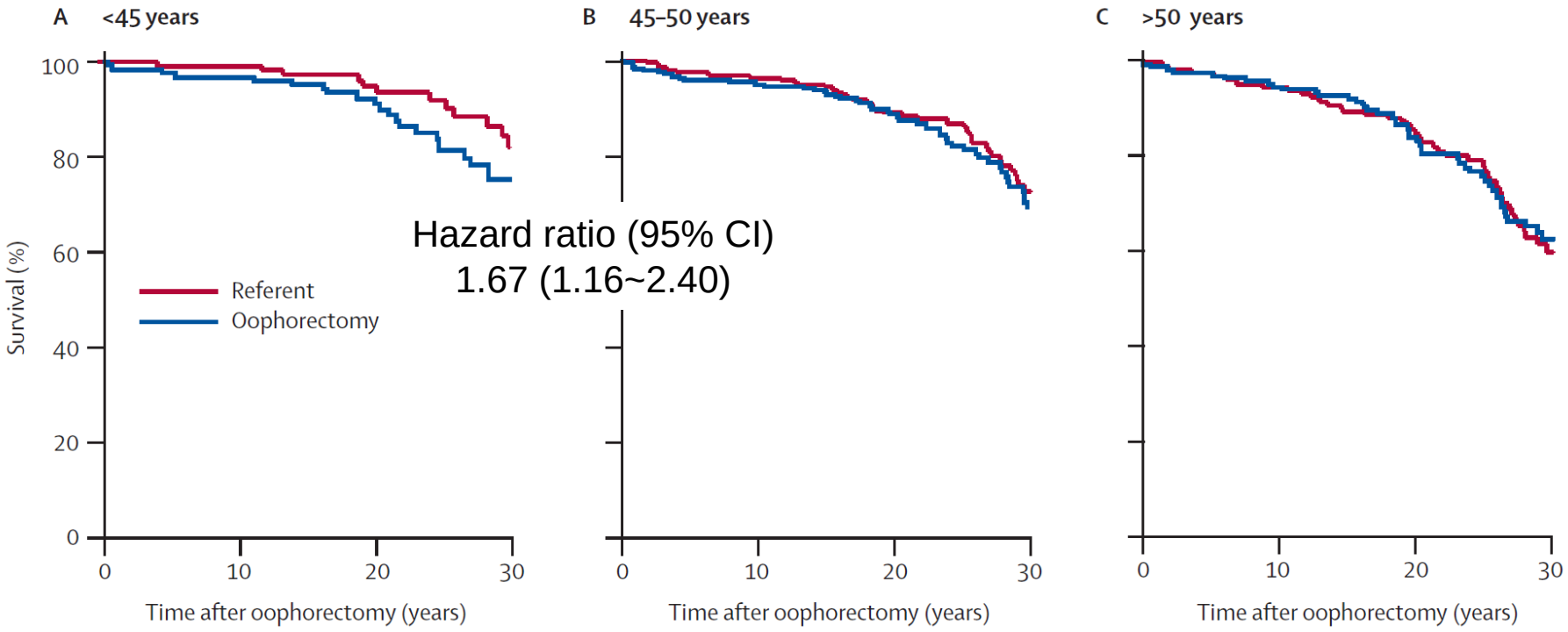

TAH, total abdominal hysterectomy; BSO, bilateral salpingo-oophorectomy; PLX, pelvis lymph node dissection; PALX, para-aortic ~; NRF, no further treatment; TC, paclitaxel & carboplatin

# Bilateral oophorectomy before age 45 years is associated with increased mortality

## 45歳未満の両側付属器切除が死亡率の増加に関連

### Survival patterns after oophorectomy in premenopausal women: a population-based cohort study

Walter A Rocca, Brandon R Grossardt, Mariza de Andrade, George D Malkasian, L Joseph Melton III

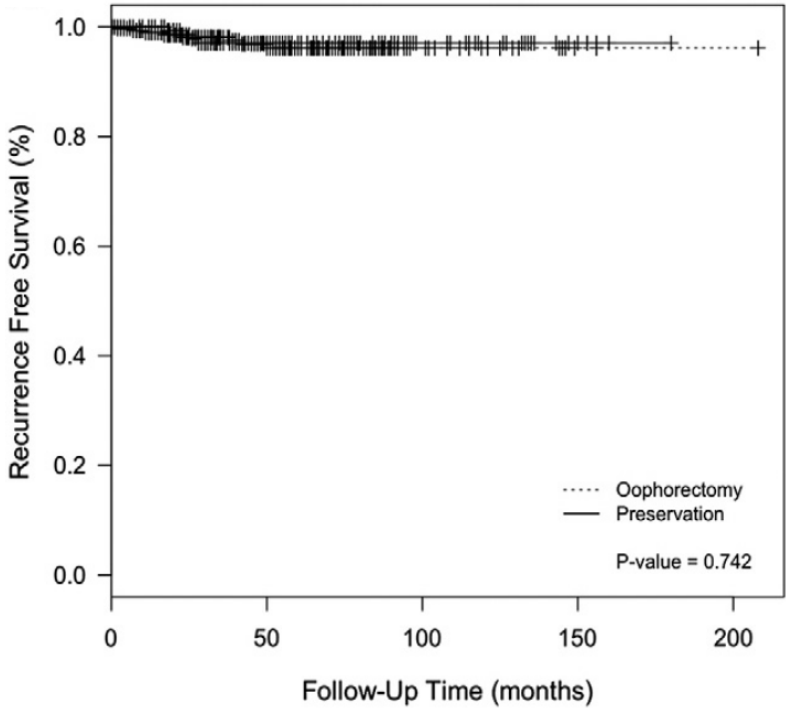


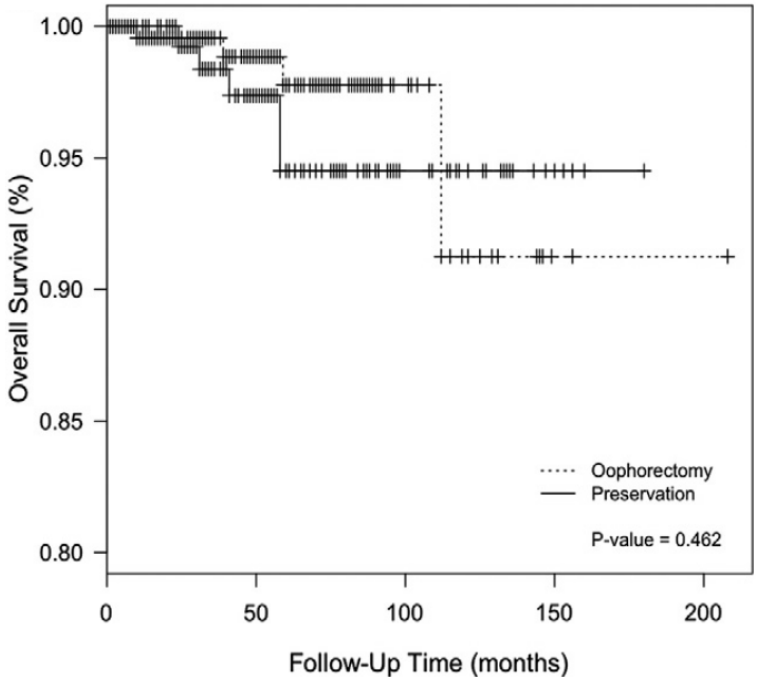

Rocca et al. Lancet 2006;7:821-8.

# Preservation of ovary

## 卵巣の温存

- Microscopic ovarian involvement occurred in 0.8% of patients.[1]
- 卵巣への顕微鏡的転移は約0.8%



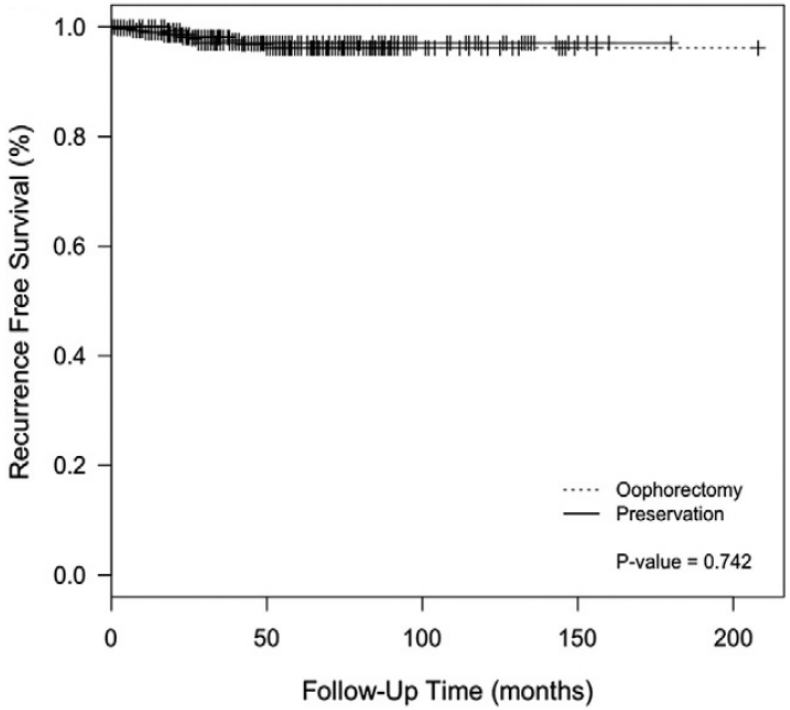



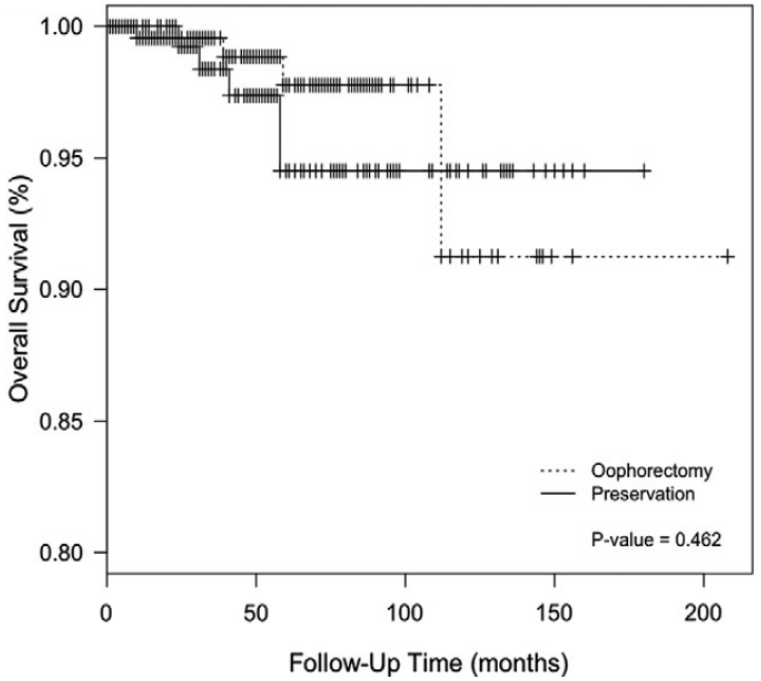

[1] Gynecol Oncol 2015;138:532-35. [2] Gynecol Oncol 2013;131:289-93

# Preservation of ovary

## 卵巣の温存

- Ovarian preservation does not appear to be associated with an adverse outcomes of premenopausal women with early-stage endometrial cancer.[2]
- 卵巣温存は未閉経の初期癌患者予後に悪影響を与えない




[1] Gynecol Oncol 2015;138:532-35. [2] Gynecol Oncol 2013;131:289-93

# Preservation of uterus

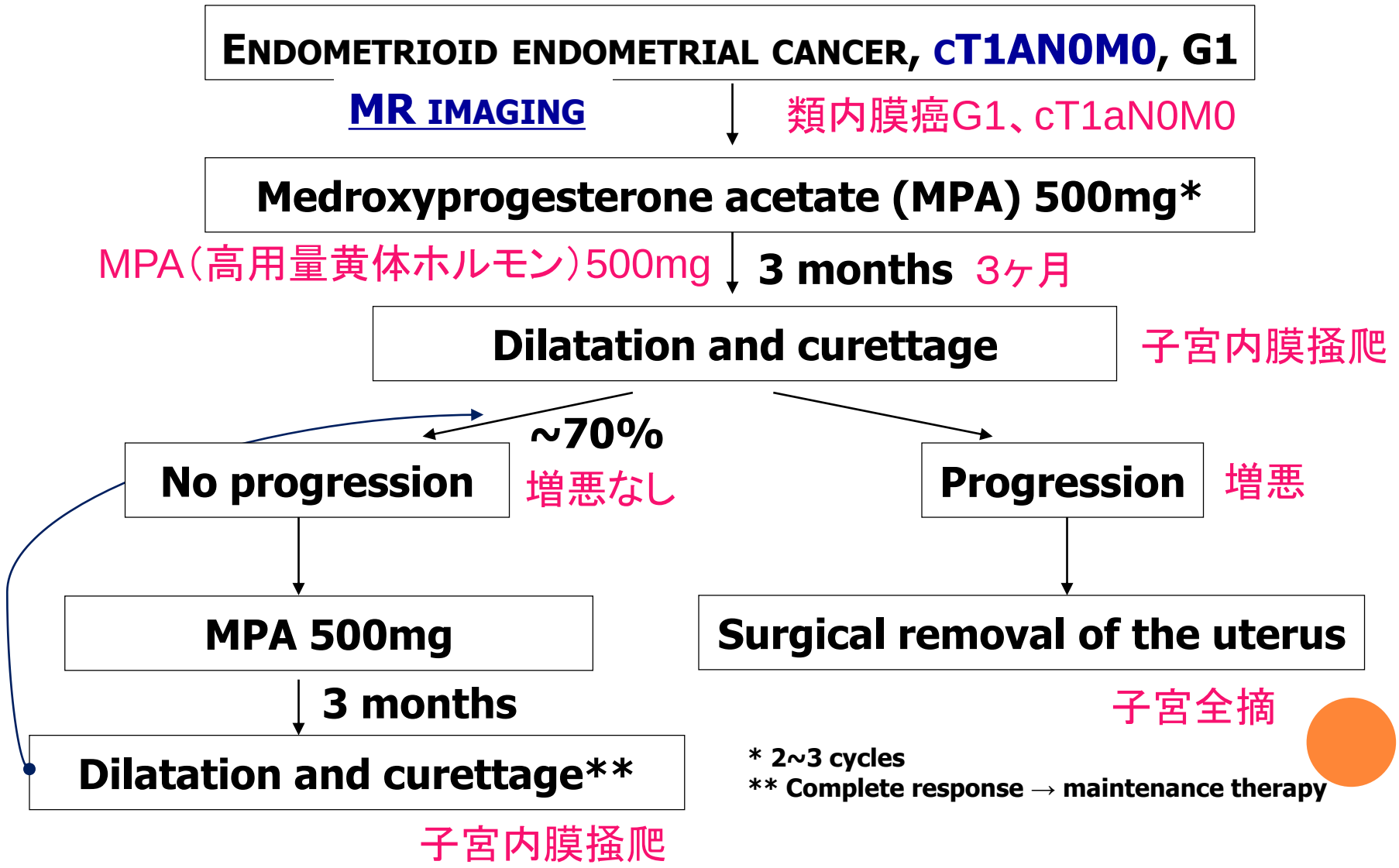
## 子宮の温存

**Eligible criteria** 適応基準

1. **Younger than 40 years-old** 40歳未満
2. **Who want fertility sparing strongly** 強い挙児希望
3. **Informed consent, signed voluntarily** 自発的な同意
4. **Histology: endometrioid adenocarcinoma, Grade 1 differentiation** 類内膜癌G1
5. **Clinically confined to endometrium - No evidence of myometrial invasion and extrauterine spread in pelvic MR image**

病変が子宮内膜に限局している
– MRIで筋層浸潤や子宮外進展を認めない

# HORMONAL THERAPY ホルモン治療



# Adjuvant Treatment
## 術後の追加治療

- Radiation, chemotherapy, hormone therapy, immunotherapy or molecularly targeted treatments

放射線、化学療法、ホルモン療法、
免疫療法、分子標的療法

- Applied or not according to the risk of recurrence
  - Low
  - Intermediate, (high intermediate)
  - High

再発リスク分類
- 低リスク
- 中リスク
- 高リスク

# Ⅰ、Ⅱ期の術後治療
# Postoperative treatment; stage I, II

- No further treatment 追加治療なし
  - Grades 1, 2 lesion without myometrial invasion
    筋層浸潤を伴わないGrade1,2,
- Radiation therapy 放射線療法
  - Vaginal vault irradiation (brachytherapy): favored
    - Grade 3 or lympho-vascular space invasion in stage I
  - External beam radiation
    外照射

    膣腔内照射
    - Grade3または脈管侵襲を伴うⅠ期
- Radiation reduces vaginal or pelvic recurrence but has not improved overall survival (cure).
  照射線療法は膣・骨盤内再発を低下させるが、生存率を改善しなかった。

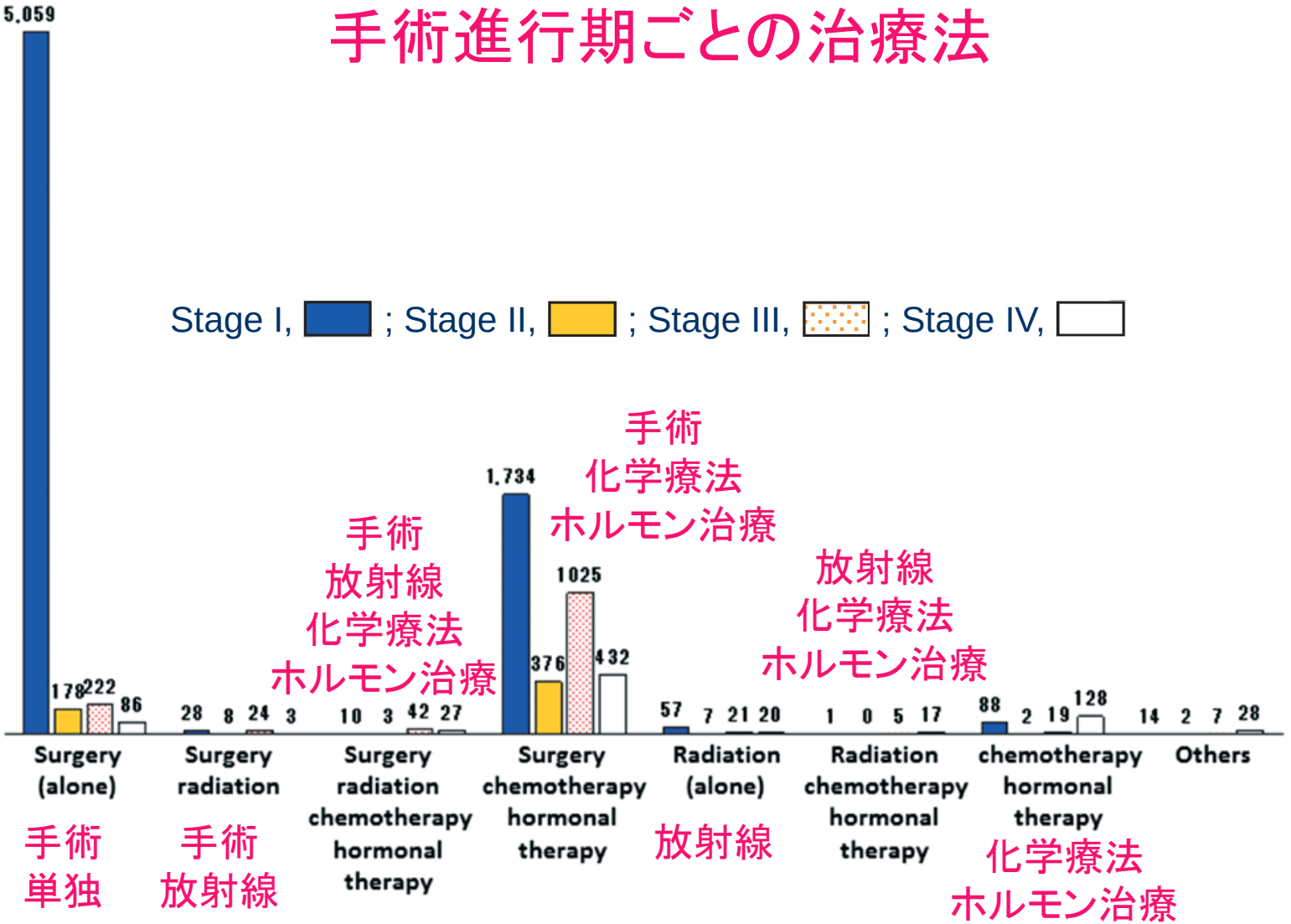
# Adjuvant radiation according to clinico-pathologic risk factors

術後放射線療法の適応は臨床病理学的なリスク因子

- Adverse risk factors リスク因子
  - Age 年齢
  - Histologic type, grade 組織型、分化度
  - Positive lymph-vascular space invasion 脈管(血管・リンパ管)侵襲
  - Tumor size 腫瘍の大きさ
  - Depth of invasion 筋層浸潤の深さ
  - Lower uterine segment involvement 子宮体下部にできた病変

# Distribution of treatment methods by surgical stages for patients with endometrial cancer in 2014 in Japan

## 手術進行期ごとの治療法




Annual Report of the Committee on Gynecologic Oncology, Japan Society of Obstetrics and Gynecology: Patient Annual Report for 2014 and Treatment Annual Report for 2009. J Obstet Gynaecol Res 2017;43:1667-77

# Ⅲ、Ⅳ期の術後治療
# Postoperative treatment; stage III, IV

- Chemotherapy 化学療法
  - Mainstay of treatment 治療の主体となる
  - paclitaxel and carboplatin パクリタキセル・カルボプラチン療法
- Chemotherapy in combination with radiation
  化学療法と放射線の併用療法
- Hormonal therapy; for palliative treatment
  ホルモン治療；主に緩和治療として
  - Progestin
  - Tamoxifen
  - Aromatase inhibitors

- プロゲスチン（黄体ホルモン）
- タモキシフェン
- アロマターゼ阻害薬

# Follow-up care
## フォローアップ

- Purpose: look for signs of cancer recurrence or treatment side effects

  目的：再発の兆候や治療の副作用をみるため

- Visit plan: every 3 months, flexible depends mostly on what stage your cancer was

  通院間隔：3ヶ月ごと、主に進行期により調整

- What to do: symptoms, pelvic examination
  診察：症状、内診
  - Routine Pap, CA-125, imaging test: little value
    - 定期の細胞診、CA125、画像検索はあまり有効でない
- If recurrence suspected: imaging test, CA-125, and/or biopsy
  再発が疑われた場合：画像検査、CA125、組織生検を行う

# Survivorship care plan

## 癌となってから生活で注意すること

- Get to and stay at a healthy weight 減量、健康体重の維持
- Adopt a physically active lifestyle 体を動かす生活習慣
- Eat a healthy diet, with an emphasis on plant foods 健康的な食事
- Limit alcohol to no more than 1 drink per day 飲酒を1日１杯までにする

- **Second cancer**
  - Colon and breast cancers are most often seen
  - Surveillance according to local guideline

２次癌
- 大腸癌、乳癌がよく併発する
- 各国のガイドラインに沿って管理

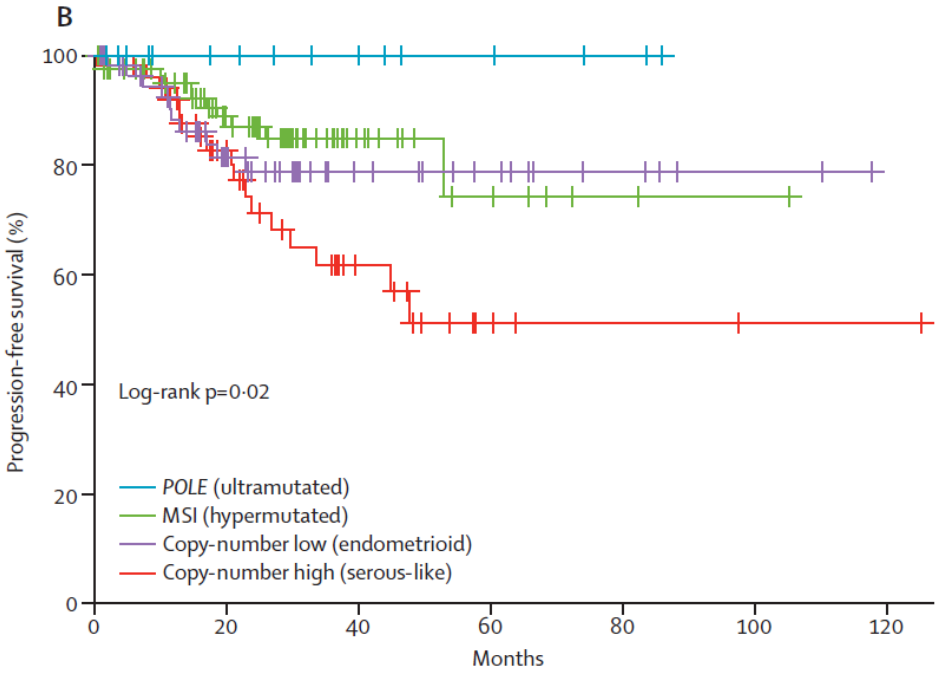
# Four distinct molecular subtypes

## 子宮体癌を4種のゲノムパターンに分類

A

| | *POLE* ultramutated | MSI hypermutated | Copy-number low, MSS | Copy-number high, serous-like |
|---|---|---|---|---|
| Mutation load | | | | |
| Somatic copy number alterations load | | | | |
| Histology | Endometrioid | Endometrioid | Endometrioid | Serous and endometrioid |
| Grade | | | | |
| *PI3K* alterations | | | | |
| *KRAS* mutation | | | | |
| *TP53* mutation | 35% | 5% | 1% | >90% |
| Prognosis | Excellent | Intermediate | Intermediate | Poor |

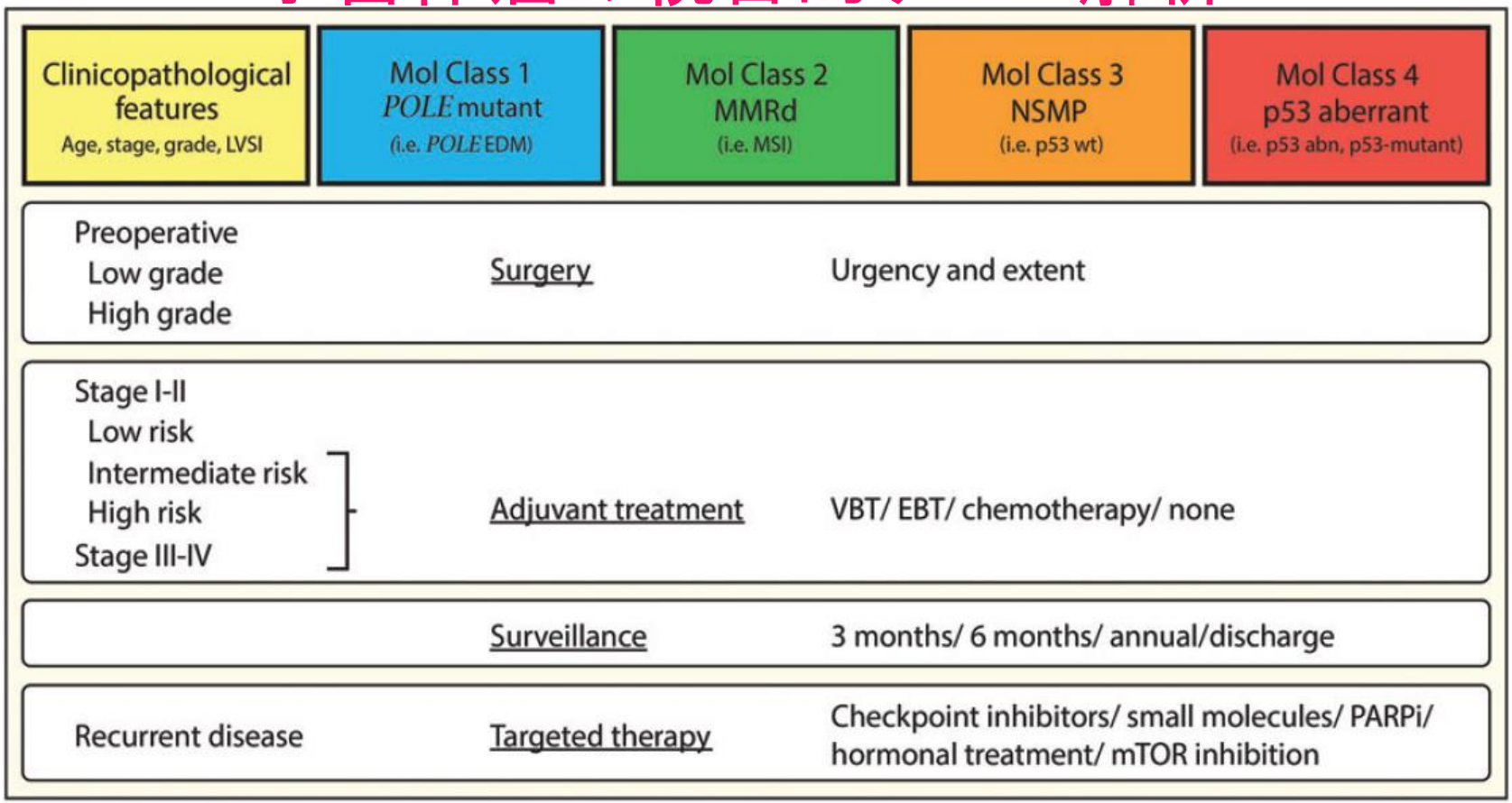
B




Lancet 2016; 387: 1094–108

# Integrated molecular classification of endometrial cancer

# 子宮体癌の統合的ゲノム解析




1. **Pragmatic assays**
2. **Combining molecular features with traditional clinico-pathologic parameters**
3. **More info on how to utilize this molecular classification to direct patient care**

J Pathol 2018; 244: 538–549

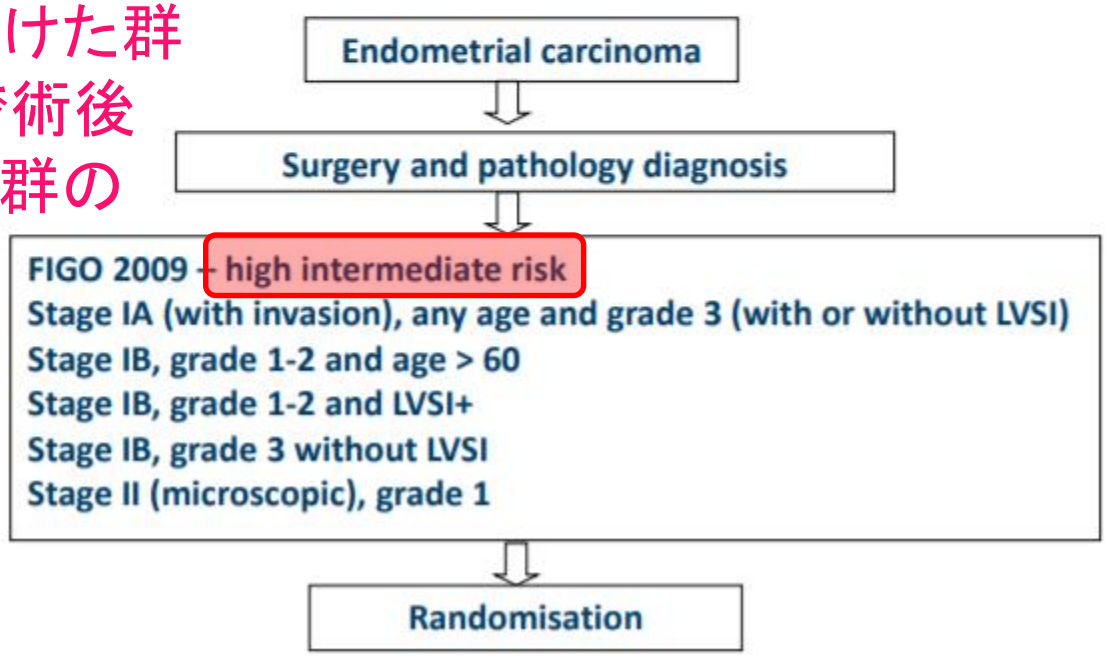
# PORTEC-4a: Randomised Phase III Trial of molecular profile-based versus standard recommendations for adjuvant radiotherapy for women with early stage endometrial cancer

Ongoing Trials – status update

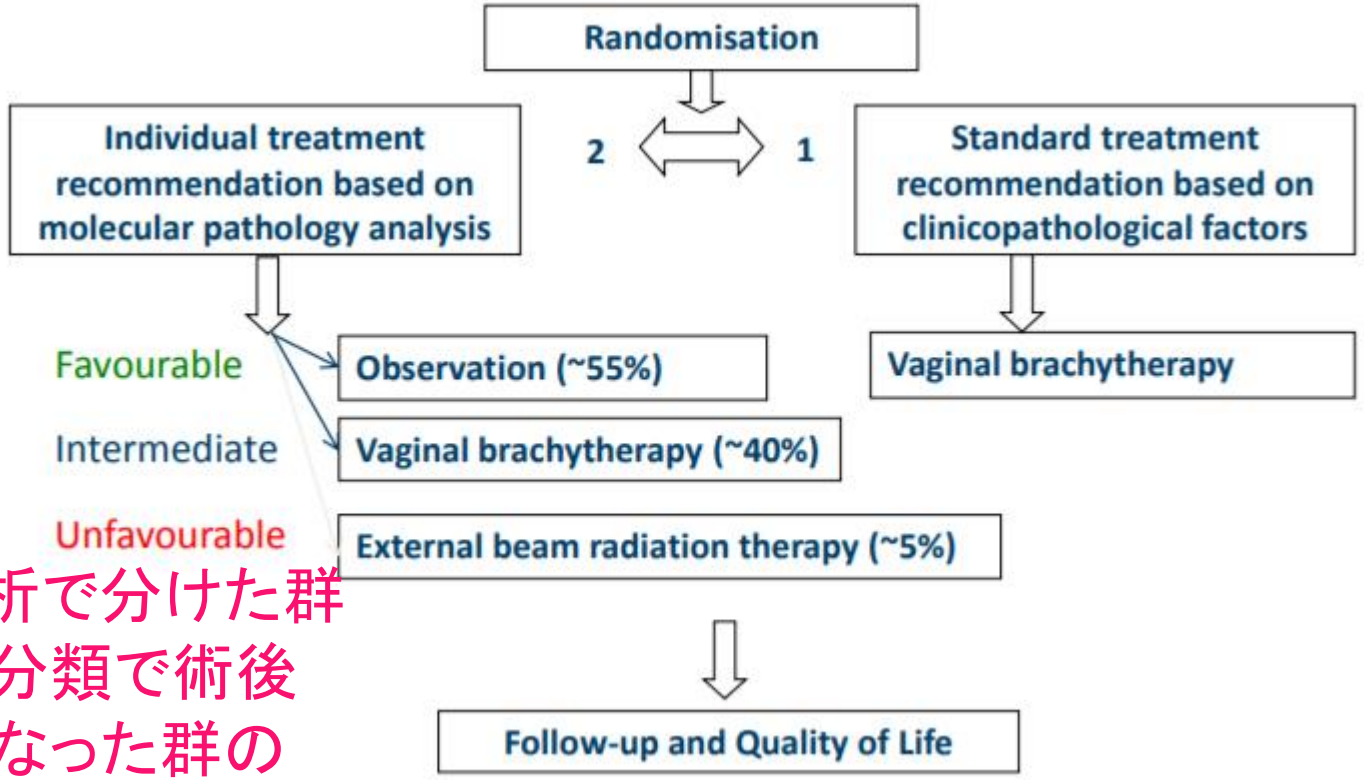
PORTEC-4a

- Molecular integrated vs standard indications for adjuvant treatment:

ゲノム分析で分けた群と従来の分類で術後照射を行なった群の比較



# PORTEC-4a: Randomised Phase III Trial of molecular profile-based versus standard recommendations for adjuvant radiotherapy for women with early stage endometrial cancer




ゲノム分析で分けた群と従来の分類で術後照射を行なった群の比較

- Molecular studies including POLE CTNNB1 mutation; L1-CAM, p53 and MMR protein expression (MLH1, PMS2, MSH2, MSH6) to classify Favorable, Intermediate, and Unfavorable risk group

# Recent progress

## 最近の話題

- Lenvatinib + pembrolizumab combination

  (Anti-angiogenics + immune checkpoint inhibitor)

レンバチニブ（血管新生阻害薬）＋ペンブロリツマブ（免疫チェックポイント阻害薬）

- Patients with advanced and/or metastatic cancer 進行再発癌
- Non-microsatellite instability high (MSI-H)/proficient mismatch repair

  マイクロサテライト不安定性（MSI）がない/ミスマッチ修復遺伝子が高頻度

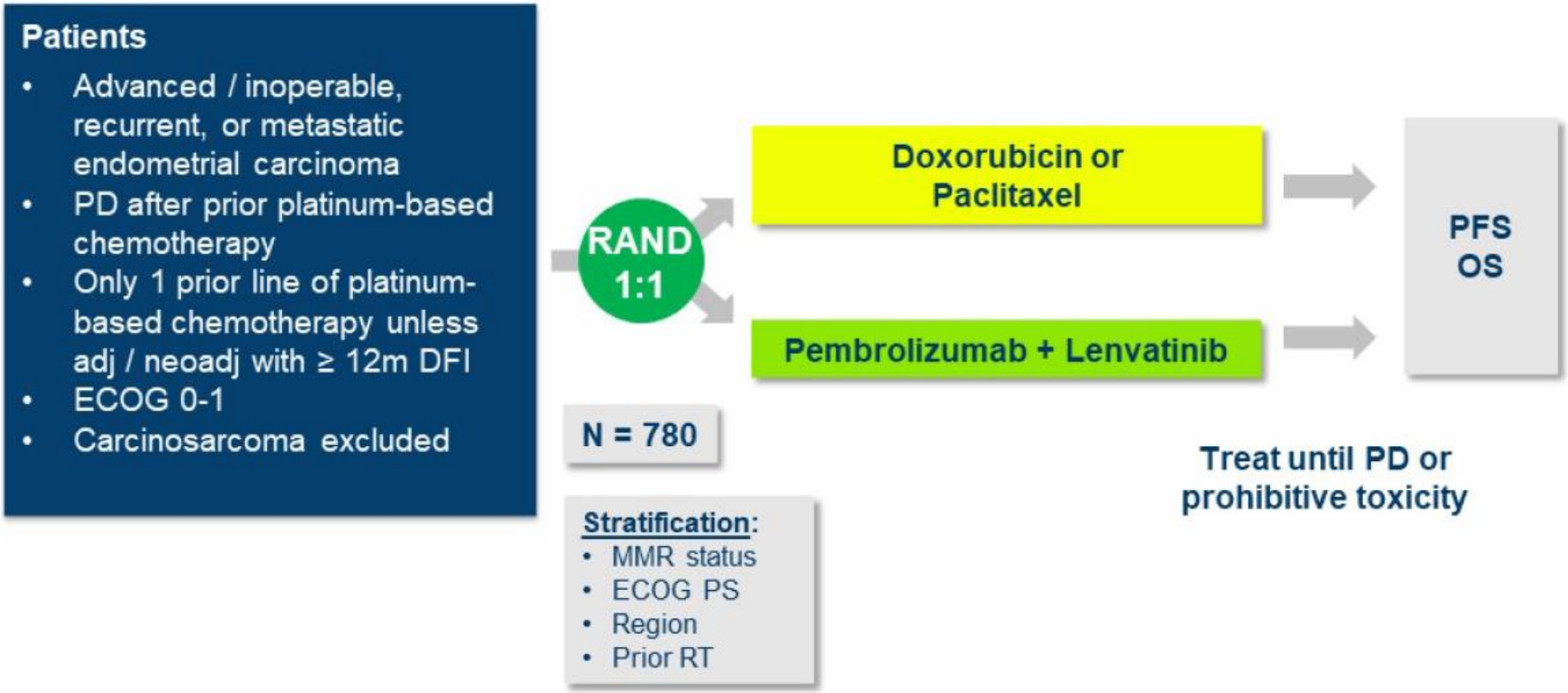
- Progressed after at least one prior systemic therapy

  少なくとも1レジメン以上の前治療歴のあること

Keynote 146 @ ASCO 2018
~48% objective response rate, not dependent on MSI or PD-L1 status

～48%の奏効率。MSIやPDL1の有無に依存せず縮小した

# Keynote 775 study scheme




再発・子宮体癌に対する血管新生阻害薬・免疫チェックポイント阻害薬の臨床試験

# Outline

1. General aspect
   - Symptoms, diagnosis, screening, prevention
   - Incidence, genetics
2. Treatment
   - Surgery
   - Lymph node dissection issue
   - Preservation of ovary, uterus
   - Adjuvant treatment & follow-up
   - Recent advances

公益社団法人
# 日本婦人科腫瘍学会
Japan Society of Gynecologic Oncology

治療ガイドライン

子宮体がん治療ガイドライン2013年版：(金原出版)


2013年12月18日発行

| | |
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| 第3章　術後治療(特殊組織型を含む) | (PDF/406KB) |
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https://www.jsgo.or.jp/guideline/taigan.html

患者さんとご家族のための

# 子宮頸がん
# 子宮体がん
# 卵巣がん

## 治療ガイドライン

第2版

編集　日本婦人科腫瘍学会
後援　日本産科婦人科学会／日本産婦人科医会／婦人科悪性腫瘍研究機構／
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IGCS

INTERNATIONAL GYNECOLOGIC CANCER SOCIETY

GYNECOLOGIC CANCER INTERGROUP

An Organization of International Cooperative Groups for Clinical Trials in Gynecologic Cancers

# Thank you.
# ありがとうございます。