Gynecologic Cancer InterGroup
Cervix Cancer Research Network

Management of Cervical Cancer in Resource Limited Settings

Linus Chuang MD MPH MS
Professor, Gynecologic Oncology
Icahn School of Medicine at Mount Sinai
New York NY

Cervix Cancer Education Symposium, January 2017, Mexico

- 84% of incidence and death occur in LMIC.
- Fourth highest cause of cancer-related death in women.
- Mortality varies 18-fold among different regions of the world.
- Most available guidelines address women and clinicians in high-resource settings.
- Resource stratified guidelines
  - NCCN (2016 version 2)
  - ASCO (2016)

Barriers

- Lack of access to surgeons trained to perform radical surgeries or to radiation.
- Challenges in acquiring routine supplies of chemotherapy and radiation equipment.
- Recommendations are based on weak evidence.
- Practitioners should offer treatments recommended for enhanced/maximal settings whenever possible.

Resource Stratified Settings

Basic	Essential services providing basic minimal standard of care
Limited/Core	**Additional services available to provide major improvement in outcomes that are not cost prohibitive** - Limited surgeons to perform radical hysterectomy and radiation machines. Chemotherapy drugs are not always available.
Enhanced	Additional services available to provide lesser improvement in outcomes that may be cost prohibitive
Maximal/NCCN	Further lesser improvement in outcomes

Gynecologic Cancer InterGroup
Cervix Cancer Research Network

LIMITED (ASCO) OR CORE (NCCN)	ASCO	NCCN
IB1 – IIA1	1. Rad hys (RH) 2. CCRT 3. Neoadjuvant CT (NACT) followed by RH or hys **if no RT**	1. RH 2. CCRT
IB2 – IIA2	1. NACT followed by RH 2. CCRT followed by hys **if no brachytherapy** 3. Brachytherapy and concurrent CT followed by RH if **no EBRT** 4. RH	1. CCRT 2. RH

Gynecologic Cancer InterGroup
Cervix Cancer Research Network

LIMITED OR CORE	ASCO	NCCN
IIB, IIIA	1. CCRT or RT followed by extrascial or modified hys 2. NACT followed by hys 3. Extrafascial or modified hys plus adjuvant therapy	1. CCRT 2. NACT followed by RH 3. CCRT followed by RH 4. RT ± CT **if no brachytherapy and surgery**
IIIB, IVA	1. CCRT or RT followed by hys 2. NACT followed by hys 3. CCRT plus adjuvant CT	1. CCRT 2. NACT followed by RH 3. CCRT followed by RH 4. RT ± CT **if no brachytherapy and surgery**

Key Points:
Lack of Radiation Machines

- Early-stage disease
  - Extrafascial hysterectomy or its modifications.
  - Neoadjuvant chemotherapy followed by surgery is recommended.
- Shorter radiation fractionation schemes with curative intent may be used.

Key Points:
Lack of Brachytherapy

- Options:
  - 50.4 Gy CCRT followed by radical hysterectomy.
  - CCRT with a boost of 68 Gy followed by extrafascial hysterectomy if there is residual disease or initial tumor >6cm.

Future Directions

- Too many patients and too few radiation machines
  - Hypofractionation? – TRIAL?
- Unpredictable chemotherapy supply
  - Radiation without chemotherapy? – RT
- Lack of surgeons to perform radical hysterectomy
  - Extrafascial or its modification for early cervical cancer? – SHAPE/ConCerv trial
  - IGCS gynecologic oncology fellowship or SGO/ASCO/HVO training program
- No brachytherapy
  - NACT followed by CCRT randomized to RH vs extrafascial hys trial (CANTU'S TRIAL?
- Palliation: care, radiation and surgery

Cervix Cancer Education Symposium, January 2017, Mexico

References

- Management and Care of Women with Invasive Cervical Cancer: ASCO Resource-Stratified Clinical Practice Guideline 2016.
- NCCN Resource Stratified Guideline on Cervical Cancer v2 2016.
- Clinical trials in low and middel-income countries – successes and challenges 2017 (PMID: 28004030).
- Brachytherapy versus radical hysterectomy after external beam chemoradiation with gemcitabine plus cisplatin: a randomized, phase III study in IB2-IIB cervical cancer patients (PMID: 23609186).