Cervix Cancer 101

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Cervical Cancer has a defined, avoidable etiology, and if caught early is curable.

How Common is Cervical Cancer?



The number of new cervical cancer cases per year increased from 378,000 in 1980 to 454,000 in 2010.

By age 50, at least 80% of women will have acquired HPV

9K-12K new cervical cancers diagnosed in the U.S. per year

Yearly

Over 3,500 preventable deaths from cervical cancer in the U.S. & 200,000 world wide

Cervical Cancer Facts

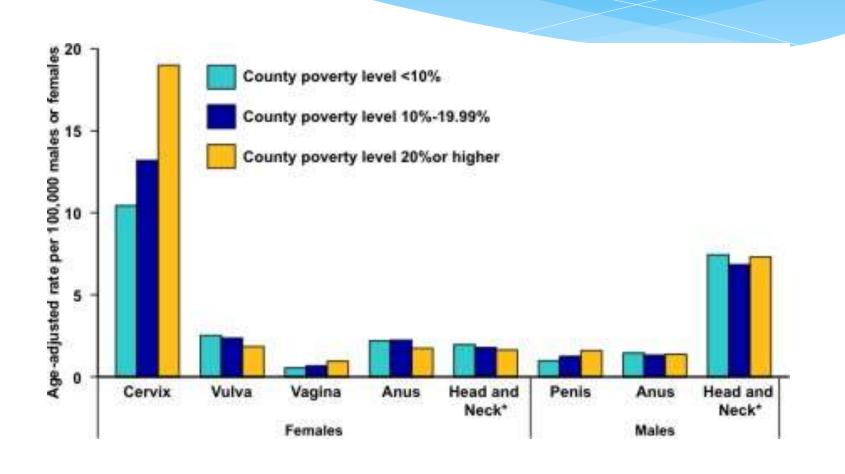
Cervical cancer is a sexually transmitted disease.

HPV DNA is present in virtually all cases of cervical cancer and precursors.

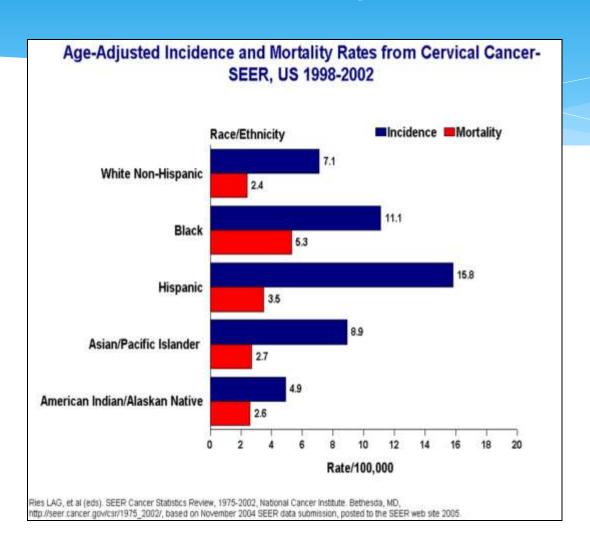
More than 75% of sexually active women exposed to HPV Little understanding of why small subset are affected by HPV.

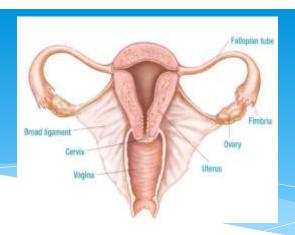
In most cases HPV goes away
Only women with persistent HPV are at risk for cervical cancer

HPV-associated Cancer Rates and County Poverty Level in the US, 1998–2003



Incidence by Race





In the 50 years following the introduction of pap, US cervical cancer rates decreased by 75% and mortality by 74%

• Despite this success:

Imperfect sensitivity of testing: 30% of all cancers Error in follow-up of abnormal results: another 10%

Now we enter a new era... the Co Testing ERA

Cytology + HPV DNA





High Grade lesions: 65% HPV 16, 18, 45, and 31.

Low grade lesions: 50% HPV 16, 18, 45, 31; 12% HPV 6 and 11

Up to 40 % of patients are infected with more than one HPV type. HPV 16 and HPV 18 are associated with 50% and 20 % of cancers

The first peak of oncogenic HPV infection occurs between the ages of 15 to 25 years, with a secondary peak in the sixth decade of life.

HPV vaccine types association with diseases

	HPV	HPV 16/18
Cervical cancer	>99%	70-75%
Anal cancer	84%	> 80%
Vaginal cancer	70%	80-90%
Vulvar cancer	40%	> 90%
Penile cancer*	47%	> 80%
Head & Neck cancer		
Oropharyngeal cancer	36%	> 95%
Oral cavity cancer	23%	> 95%

In addition, 90% of genital warts are caused by HPV 6 and 11 and almost all cases of recurrent respiratory papillomatosis (RRP)

TABLE 1. Summary of Recommendations

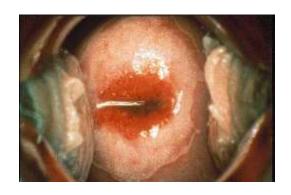
POPULATION	PAGE NUMBER	RECOMMENDED SCREENING METHOD ^a	MANAGEMENT OF SCREEN RESULTS	COMMENTS
Aged < 21 y	7	No screening		HPV testing should not be used for screening or management of ASC-US in this age group
Aged 21-29 y 8-	8-9	Cytology alone every 3 y	HPV-positive ASC-US ^b or cytology of LSIL or more severe: Refer to ASCCP guidelines ²	HPV testing should not be used for screening in this age group
			Cytology negative or HPV-negative ASC-US ^b : Rescreen with cytology in 3 y	
Aged 30-65 y 9	9-16	HPV and cytology "cotesting" every 5 y (preferred)	HPV-positive ASC-US or cytology of LSIL or more severe: Refer to ASCCP guidelines ²	Screening by HPV testing alone is not recommended for most clinical settings
			HPV positive, cytology negative: Option 1: 12-mo follow-up with cotesting Option 2: Test for HPV16 or HPV16/18 genotypes • If HPV16 or HPV16/18 positive: refer to colposcopy • If HPV16 or HPV16/18 negative: 12-mo follow-up with cotesting	
			Cotest negative or HPV-negative ASC-US: Rescreen with cotesting in 5 y	
		Cytology alone every 3 y (acceptable)	HPV-positive ASC-US ^b or cytology of LSIL or more severe: Refer to ASCCP guidelines ²	
			Cytology negative or HPV-negative ASC-US ^b : Rescreen with cytology in 3 y	
Aged > 65 y	16-17	No screening following adequate negative prior screening		Women with a history of CIN2 or a more severe diagnosis should continue routine screening for at least 20 y
After hysterectomy	17-18	No screening		Applies to women without a cervix and without a history of CIN2 or a more severe diagnosis in the past 20 y or cervical cancer ever
HPV vaccinated	18-19	Follow age-specific recommendations (same as unvaccinated women)		

Placing risk in perspective in making management decisions

- * Using risk of CIN3+ to make guidelines that incorporate HPV testing
- * Guidelines-recommend co testing
 - * 90% HPV-and PAP- so 3-5 yrs
 - * 10% HPV+ or PAP + so how do we manage this

Too Much vs Too Little

both can do harm...



CIN 3 - Carcinoma in situ







Cumulative Risk of Cervical cancer in treated or untreated CIN3

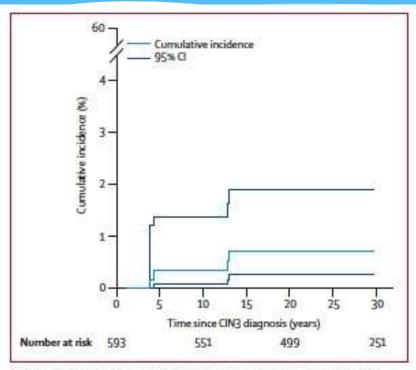


Figure 4: Cumulative Incidence of cancer of the cervix or vaginal vault in women with initial treatment classified as adequate or probably adequate and conventional management thereafter

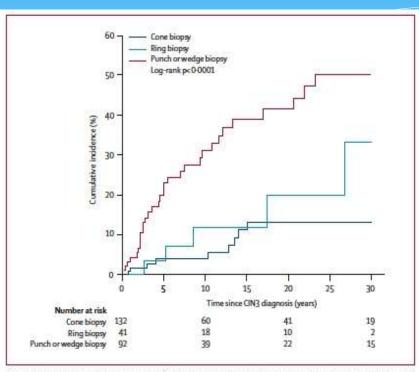
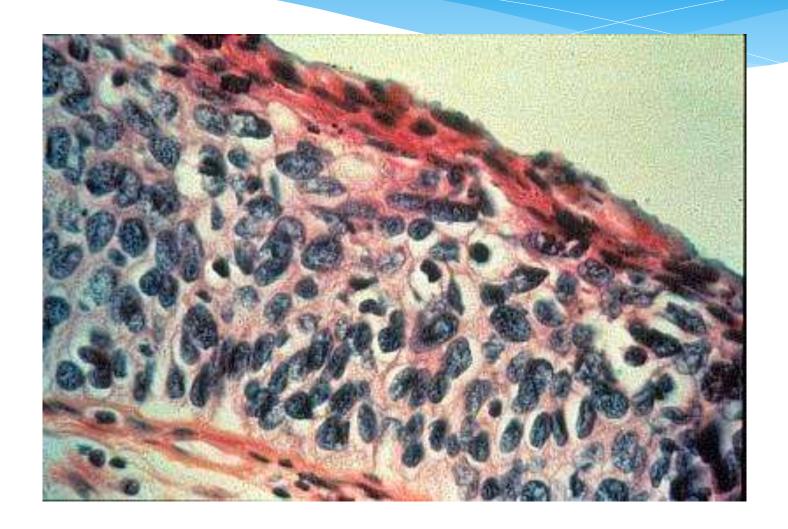


Figure 2: Cumulative incidence of cancer of the cervix or vaginal vault in women with cytological evidence of persistent disease after initial treatment according to whether their maximum initial procedure was a cone blopsy, a ring blopsy, or a punch or wedge blopsy

<1% vs. 50%



Cervix Cancer

Age

Mean 52.2 yrs

Bimodal distribution - peaks 35-39 yrs and 60-64 yrs

Screening

50% of women diagnosed with cervix have <u>never had a</u> PAP

10% of women diagnosed with cervix cancer have <u>not</u> had a PAP in 5 years

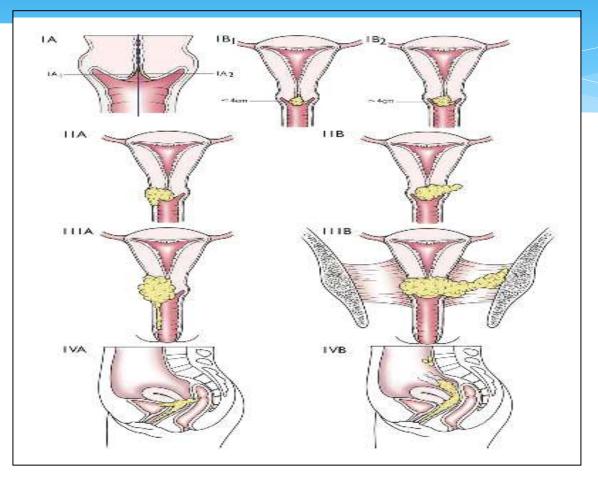
Cervical Cancer: Symptoms

- * Often no symptoms
- * Post coital bleeding
- * Foul vaginal discharge
- * Abnormal bleeding
- * Pelvic pain
- * Unilateral leg swelling or pain
- Pelvic mass/gross cervical lesion

Cervical cancer: What is the chance of survival?

FIGO Stage	5-Year Survival
Stage I	81-96%
Stage II	65-87%
Stage III	35-50%
Stage IVA	15-20%

Clinical staging of cervical cancer



Source: "FIGO Annual Report on The Results of Treatment in Gynaecological Cancer" *Journal of Epidemiology and Biostatistics*, (2001) vol. 6 no. 1, page 14.

*Mutch D. "The new FIGO 2009 staging system for cancers of the vulva, cervix, endometrium and sarcomas" Gynecologic Oncology, (2009) vol. 115, no. 3, pgs 325-328

FIGO 2009 Going Backwards or Forwards?

Updates

- Still clinically staged
- EUA, cystoscopy, proctoscopy, IVP optional
 - CT, MRI, PET don't change clinical stage
- Clinical Staging doesn't take into account LND
- •EUA incorrect in 25% Stage I & 50% Stage II

Staging Options: FIGO-Basic vs FIGO-Enhanced

Any imaging (PET/MRI/CT) allowed but biopsy/surgery conformation required

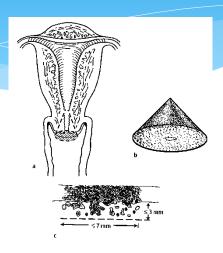
- * Stage IA
 - * IA1-unchanged
 - * IA2-based on final pathology P+/P-
- * Stage IB
 - * P+/P- PA+/PA-
- * Stage IIA/IIB
 - * P+/P- PA+/PA-
- Stage IIIA/Stage IIIB
 - * P+/P- PA+/PA-
- * Stage IVA
 - * P+/P- PA+/PA-
- Stage IVB-unchanged

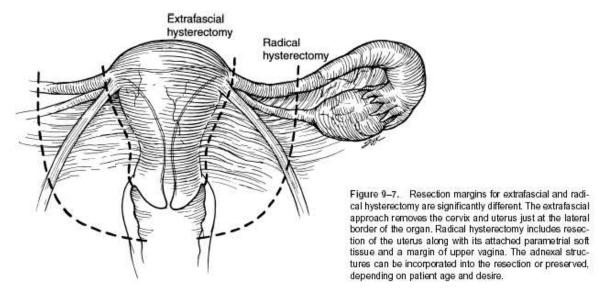
Staging Workup

- * Examination under anesthesia
- * +/-Cystoscopy / proctoscopy
- * Chest radiograph
- * CT or MRI and PET
- * Other tests can be performed for treatment planning but won't change the stage

Treatment Stage IA1

- * Simple Hysterectomy (Extrafascial)
- * Conization
- * Intracavitary radiation

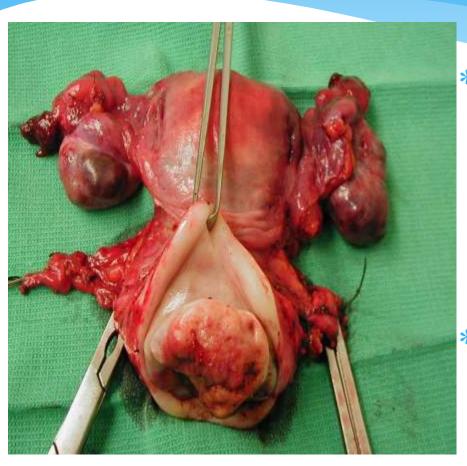




Treatment - Microinvasive CA

- * Implies minimal risk of nodal involvement
- *3 mm or less invasion and NO LVSI
- * Simple hysterectomy
- * Cone biopsy

Radical hysterectomy



Used to treat cervical cancers with invasion > 3mm but confined to the cervix and vagina < 4 cm (Stage IA2 –IB1)

 Removal of parametrium and upper vagina

When is RT or Chemo/RT Indicated After Radical Hysterectomy?

Radiation if two of the following:

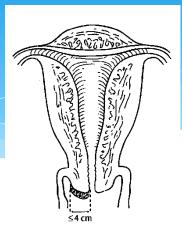
- *deep invasion, large tumor or vascular invasion
 - * GOG 92 (Sedlis A Gyn Onc 73:177-183, 1999)

Chemo-RT if one of the following:

- * Positive margin, parametrial extension, positive node
 - * GOG 109 (Peters WA J Clinic Oncol 18:1606-1613, 2000)

Treatment Options Stages IA2- IIA

- * Radical Hysterectomy and node dissection
 - * Patients with two or more risk factors are candidates for post-op radiation: greater than 1/3 stromal invasion, lymph-vascular space invasion, clinical tumor size >4cm



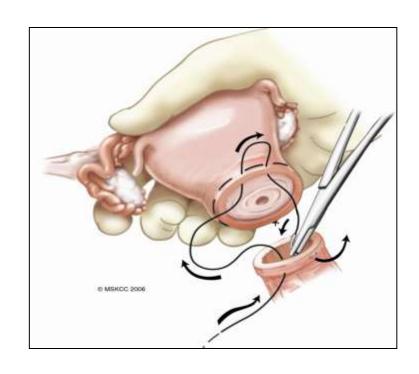
- Fertility sparing surgery
 - * Trachelectomy / cryopreservation
- Chemo-Radiation Therapy
 - * Number and Level of positive nodes?



Radical Trachelectomy

Candidates:

- * Desire to retain fertility
- * Stage IA2 or IB1
- * Lesion < 2 2.5 cm
- No evidence of lymph node or distant metastases
- * Absence of high risk histologies (e.g. neuroendocrine tumors)



Protocol 2008-0118

- * Prospective, multi-center, international study
- Objective: To evaluate the safety and feasibility of performing conservative surgery in women with early stage cervical cancer with favorable pathologic characteristics

Inclusion Criteria:

- Stage IA2 or IB1 cervical cancer
- * Tumor diameter < 2 cm</p>
- * No LVSI
- Squamous cell histology (any grade) or adenocarcinoma (grade 1 or 2 only)
- * Cone margins and ECC negative for malignancy or AIS (one repeat cone/ECC permitted)

Radiation – Early stage disease

- * Equally effective
- * Side effect profile less desirable
- * Longer treatment duration
- * Obliterates ovarian function
- * Decline in sexual function?

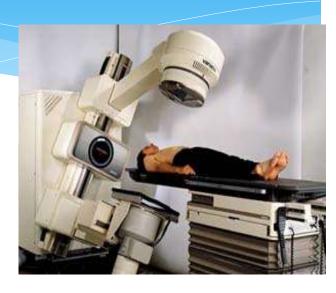
Advanced Cervical Cancer

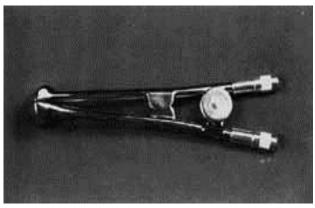
* Advanced disease (Stage IIB-IV)

- * Chemo-radiation Treatment:
 - * Radiotherapy to known volume of disease
 - * 25 outpatient treatments
 - * Chemotherapy, "sensitizers" given along with radiation to improve response
 - * Brachytherapy/high dose rate inplants
 - * Rarely: Surgery
 - * Ultra-radical (exenterative) surgery limited to cases of locally invasive disease

* Problem:

Distant metastatic failure occurs in 66% of patients in this group





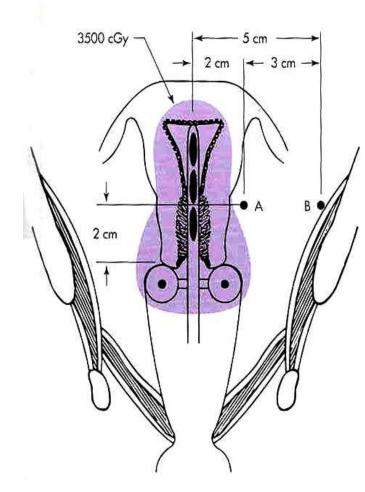
Global Standard Stage IB2 - IVA

- External beam pelvic radiation (40-60 Gy)
- Brachytherapy (80-85 Gy to Point A)
- I.V. Cisplatin chemotherapy
 - Cisplatin 40mg/m² (Max 70mg) IV q wk during RT (6wks)
 - * GOG 120 (Rose PG et al. Concurrent cisplatin-based radiotherapy and chemotherapy for locally advanced cervical cancer. NEJM 340(15):1144, 1999

Reduces risk of pelvic recurrence by 50% Extends OS by 5-20% c/w XRT alone

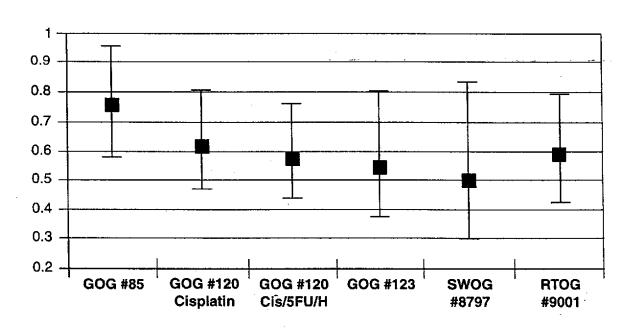
The New England Journal of Medicine

CONCURRENT CISPLATIN-BASED RADIOTHERAPY AND CHEMOTHERAPY FOR LOCALLY ADVANCED CERVICAL CANCER



Chemoradiation: Risk of Death Decreased by 30-50%

Relative Risk Estimate of Survival from Five Chemoradiation Clinical Trials



Relative Risk – with 90% C.I.

Side effect profile Surgery vs. ChemoXRT

- * Surgery-related risk
- * Bladder atony 4%
- * 1-3% fistula rate, half heal spontaneously
- * Mortality <1%

- * 14% risk of major complications (bowel, bladder)
 - * Stage (5-10 vs 15%)
 - * Dose
- * Early > late
- * 26% severe urinary sx

New considerations

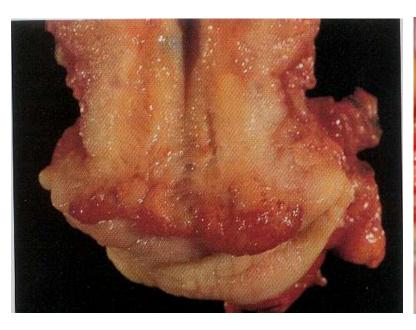
- *MIS?
- *Lymphatic mapping
- * Retroperitoneal lymphadenectomy
- * Additional chemotherapy
- * New radiation sensitizers/IMRT

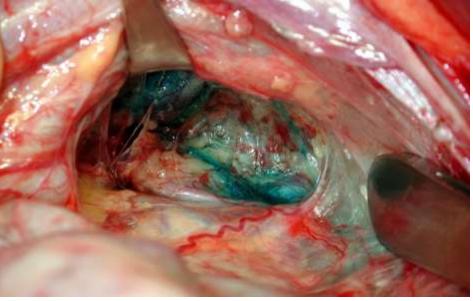
A Phase III Randomized Clinical Trial of Laparoscopic or Robotic Radical Hysterectomy versus Abdominal Radical Hysterectomy in Patients with Early Stage Cervical Cancer

Primary Objective

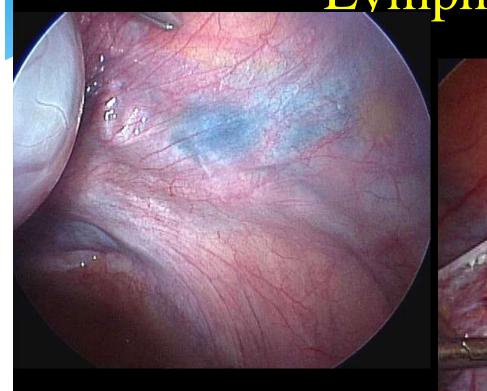
To compare <u>disease-free survival</u> amongst patients who undergo a Minimally Invasive Radical Hysterectomy (TLRH,TRRH) versus Abdominal Radical Hysterectomy (TARH)

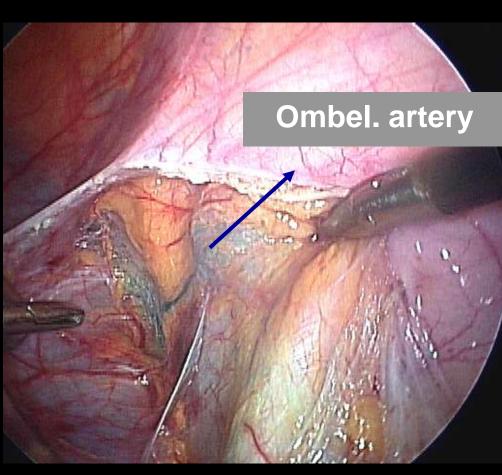
Patterns of Spread





Sentinel node, Right side: Lymphazurin





New considerations

- *MIS?
- *Lymphatic mapping
- * Retroperitoneal lymphadenectomy
- * Additional chemotherapy
- * New radiation sensitizers/IMRT

Surgical Staging Options

Complication rates:

Transperitoneal laparotomy	10-16%		
Extraperitoneal laparotomy	5-10%		
Laparoscopy extraperitoneal	1-3%		

Survival advantage:

Surgical vs Radiogr. 4yr PFS 49 vs 36%

N=555/130 GOG studies HR 1.46 (1.08-1.99)

Gold MA et al Cancer 2008; 112:1954-63

*p=0.01

Surgical vs Clinical 29 vs 19 months

N=274 Stage IIB-IVA

Holcomb et al. Eur J Gynecol Oncol 1999;20:90-3

Laparoscopic RPLND in locally advanced cervical cancer

- Of the 26 patients with negative pelvic and para-aortic nodes on PET/CT
 - * 3 (12%) had histopathologically positive para-aortic nodes.
- * Of the 27 patients with positive pelvic but negative para-aortic nodes on PET/CT, 6 (22%) had histopathologically positive para-aortic nodes.
- * Eleven (18.3%) patients had a treatment modification based on surgical findings.

New considerations

- *MIS?
- *Lymphatic mapping
- * Retroperitoneal lymphadenectomy
- * Additional chemotherapy
- * New radiation sensitizers/IMRT

C-xrt followed by Chemo

- * Meta analysis showed increased OS of 19% at 5 yrs
- * Included early trials but did not include GOG 120 or RTOG 90-01 which set standard for C-xrt
- Lorvidhaya 4 arm trial
 - Increased OS in C-xrt but no further increase in C-xrt and adj chemo

Klopp Curr Oncol Rep DOI 10.1007 Nov 2010 Lorvidhaya Radiat Oncol Biol Phys 2003

RTOG-0724 (GOG):

- *Early stage cervical cancer s/p RH
 - *Stage IA2-IB2:
 - *Positive nodes
 - *parametrial extension
 - *positive margins after radical hysterectomy
- *Patients had positive nodes or parametrial involvement and disposition to C-XRT
- *Randomized to adjuvant T/C or none

THE OUTBACK TRIAL: Phase III trial of adjuvant chemo following chemoradiation for locally advanced cervical cancer VS chemoradiation

Stage IB₂-IVa Cervical cancer:

Stratify for

- FIGO stage
- Pelvic nodal involvement
- Uterine +veon MRI

Standard chemoXRT

4 cyclesCarboplatin+ Paclitaxel

Standard chemoXRT

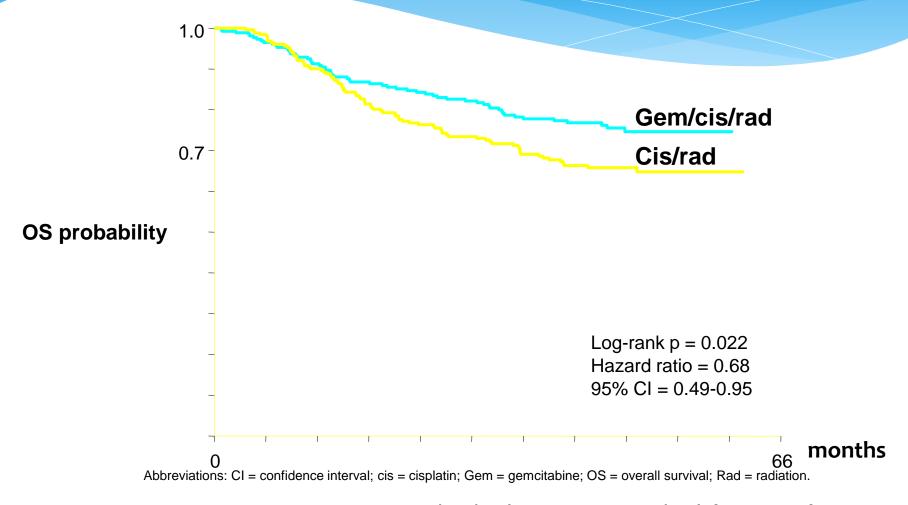
New considerations

- *MIS?
- *Lymphatic mapping
- * Retroperitoneal lymphadenectomy
- * Additional chemotherapy
- * New radiation sensitizers/IMRT

GOG Phase I Trials of CRT

- GOG 9803 CDDP-Paclitaxel-Pelvic RT (PALN-neg)
 - * MTD = CDDP 40 mg/m2 (maximum 70 mg) and paclitaxel 40 mg/m2 weekly x 6 cycles ¹
- * GOG 9804 CDDP-Paclitaxel-EFRT (PALN-pos)
 - * MTD = CDDP 40 mg/m2 (maximum 70 mg) and paclitaxel 40 mg/m2 weekly x 6 cycles
- * GOG 9912 CDDP-Gemcitabine-RT (PALN-neg)
 - Closed due to toxicty
- GOG 9918 CDDP-Cetuximab-RT (PALN-any)
 - * Active for accrual
- * GOG 9913 CDDP-Topo (weekly)-RT (PALN-neg)
 - * Active for accrual

Overall Survival



PFS at 3 yrs: 74.4% Gem/cis/rad vs 65.0% Cis/rad (p=0.029)

OS at 3 years: 78.2% in Gem/cis/rad vs 69.1% Cis/rad

Dueñas-González A et al J Clin Oncol 27:15s, 2009 (suppl; abstr 5507)

RTOG 0417 Phase II Study of Bevacizumab with Radiotherapy and Cisplatin Chemotherapy in Locally Advanced Cervical Carcinoma N=57

SCHEMA

REGISTER

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Pelvic RT:
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45 Gy given in 25 once-daily fractions (1.8 Gy/fraction) Monday-Friday over 5 weeks

↓

LDR x 2 or HDR x 5

1

Parametrial boost (if indicated)

Bevacizumab (Avastin®): IV Q2 weeks (Days 1, 15 and 29) during chemoradiation, given before cisplatin, on the same day as cisplatin

Cisplatin: Weekly infusion x 6 weeks

Bulky IB-IIIB Weekly CDDP Avastin1omg/kg

Case Presentation: Recurrent Disease

- * 41 y.o. G₃P₂ Principal
 - * Previous Stage IB, SCC
 - * Standard CDDP-XRT
 - * Complete response
 - * LLE swelling, pelvic ache, cough
 - * Exam:
 - * Pelvic mass
 - * Nodes
 - * Lung nodules



Signs and Symptoms of Recurrent Disease

- * Weight loss
- * Leg edema
- * Pelvic and/or thigh-buttock pain
- * Serosanguinous vaginal discharge
- * Progressive ureteral obstruction
- * Supraclavicular adenopathy
- * Cough
- * Chest pain

"What if it comes back?"

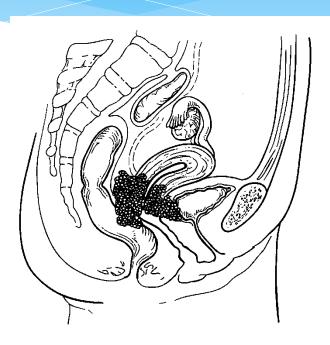
- * Bottom line: Bad news
- * Isolated central pelvic recurrence:
 - * Total pelvic exenteration → 50% cure
- * Multiple metastases
 - ***** Chemotherapy → limited success

Total Pelvic Exenteration

- Removal of gynecologic organs and vagina
- * Removal of bladder and rectosigmoid
- * Colostomy
- * Urinary conduit
- * Neovagina

Prognostic Variables

- * Pathologic Subtype
- * Tumor Size
- * Depth of Invasion
- * Lymphvascular Invasion
- * Lymph Node Metastases
 - * Early stage negative nodes
 - * 86-92% 5 yr survival
 - * Early stage positive nodes
 - * 50-60% 5 yr survival



Predictors of Response to Chemotherapy in Recurrent Cervical Cancer

- * Previous radio-sensitizing chemotherapy
- * Platinum free interval
- * Quality of life / Pain / Performance Status
- * Site of recurrence
 - * Response more frequent in non-irradiated sites (70% v 23%, P = .008, GOG 76X, Rose PG et al J Clin Oncol 17:2676, 1999)

Recurrent Cervical Cancer: Current GOG Studies (Phase II)

* 76 series (limited access), untreated

* 127 series, prior therapy, squamous

* 227 biologic series

- * 128 series, prior therapy, nonsquamous
 - * No further studies planned

Extrapelvic Non-Isolated and Pelvic Sidewall Recurrence following XRT

- Cisplatin + Taxol- 43[®]
- * Cisplatin + Topotecan- 27%
- * Cisplatin + Gemzar- 22%
- * Cisplatin + Navelbine- 30%
- * Cisplatin- 15-23%
- * Ifosfamide- 15%
- * 5-FU- 18%
- * Navelbine- 18%
- * CPT-11- 18%
- * Bleomycin- 10%
- * Vincristine- 18%

nab-paclitaxel in advanced cervix cancer

- * 28.6% had a partial response
- * 42.9% had stable disease
- * Median progression-free and overall survival were 5.0 and 9.4 months, respectively

Treatment of Recurrence Phase III

- * GOG 204 TP vs VP vs GP vs TP
 - closed, unable to show superiority over TP
- * GOG 169 CDDP vs CDDP/Taxol
 - * RR superior with combination
 - * JCO 22(15) 3113 2004 Moore
- * GOG 179 CDDP vs CDDP/Topo
 - * RR, OS, PFS superior with combination
 - * JCO 23(21) 4626, 2005 Long

Bevacizumab

Phase II n=6

- * median 3 priors
- * 1CR, 1PR, 2 SD TTP 4 mos
 - * Wright eg al Gyn Onc 2006

* GOG Phase II 227-C

- * 1-2 priors
- * Bev 15mg/kg q 3 weeks
- * 23.9% progression free >6 months
- * 10.9% PR
 - * MRD 6.21 months (range, 2.83 to 8.28 months)
 - * Median PFS and OS: 3.40 mos and 7.29 mos respectively.
 - * J Clin Oncol. 2009 Mar 1;27(7):1069-74

240-Randomized 4 arm study Non platinum doublets

Topotecan/Paclitaxel or Platinum/Paclitaxel +/-Bevacizumab

Results pending

Non superiority of Topotecan/Paclitaxel over Platinum/Paclitaxel

Targeted Therapies for Recurrent Cervical Cancer

- * Therapeutic HPV Vaccines
- * Anti-EGFR
 - **Anti-angiogenesis**
 - Important in cervical cancer growth, invasion, and metastasis
 - E6 mediated inactivation of wild-type p53 up-regulates
 VEGF
 - * Oncolytic viruses

Cetuximab in Combination with Cisplatin in Advanced Carcinoma Of The Cervix 76-DD

	CIS-RT		No CIS-RT		
Tumor Response	n	%	n	%	Total
Complete Response	0	0.0	1	3.4	1
Partial Response	3	7.5	4	13.8	7
Non-Response*	37	92.5	24	82.8	61
Total	40		29		69

pemetrexed (Alimta, LY231514) as second line chemotherapy carcinoma of the cervix

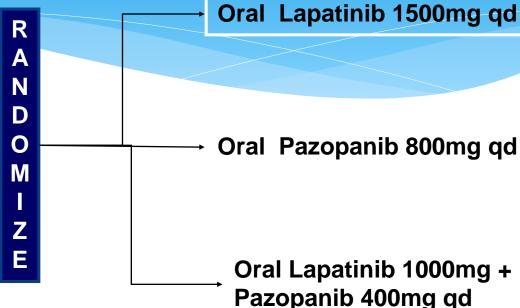
- * 15% had partial responses with a median response duration of 4.4 months
- * The response rate for non-radiated or radiated disease sites was 25% and 7% respectively.
- * 59% had stable disease and 26% patients had increasing disease.
- * Median progression free survival (PFS) was 3.1 months and overall survival (OS) was 7.4 months.

A Phase II Trial of Erlotinib In Recurrent Carcinoma of The Cervix: A Gynecologic Oncology Group Study

- * PO erlotinib 150 mg daily until progressive disease or adverse effects
- * 28 enrolled 25 evaluable
- * No objective responses
- * 1 patient had a progression-free survival (PFS) ≥ 6
 months (4%)

Study VEG105281 GSK

- FIGO Stage IVB or recurrent or persistent cervical cancer
- Zero or one prior chemo regime for advanced/recurrent disease

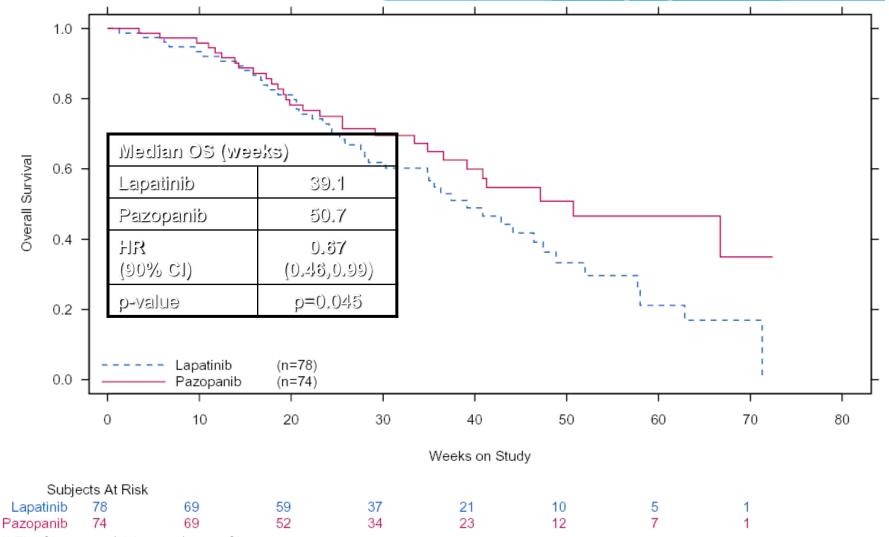


- Randomized Phase II
- **Endpoint: PFS**
- TR Analyses
 - ERbB1, ERbB2, and the combined ERbB1/ERbB2 overexpressed and gene-amplified (FISH+) populations

Lapatinib: oral dual EGFR/HER2/neu TK inhibitor Pazopanib: oral TK inhibitor in VEGF pathway Monk BJ et al J Clin Oncol 27:15s, 2009 (suppl; abstr 5520)

Kaplan-Meier Curve OS

Monk BJ et al J Clin Oncol 27:15s, 2009 (suppl; abstr 5520)



^{**} The CI are 90% (alpha=10%) naïve CIs.

^{***} Wald normal approximation is used to calculate the p-value

^{*} One-sided p-value due to study design. Two-sided would be p=.09.

GOG Protocol 227G

* A PHASE II EVALUATION OF BRIVANIB (BMS582664, IND#) IN THE TREATMENT OF PERSISTENT OR RECURRENT CARCINOMA OF THE CERVIX (BMS Study CA182-048)

GOG 265

A PHASE II EVALUATION OF ADXS11-001 (NSC 752718, IND#13,712) IN PERSISTENT OR RECURRENT CARCINOMA OF THE CERVIX

- 6 patient safety lead in
- Two stage phase II
- The primary measure of efficacy will be overall survival at 12 months.
- Study Chair: W Huh

Summary of Treatment for Recurrent Disease

- Only pelvic exenteration curative for central pelvic recurrences
- Palliative radiation of painful metastases
- Cisplatin doublets standard in treating metastatic disease
- Anti-vascular compounds emerging as new systemic agents for advanced and recurrent cancer
- Quality of life and honesty needs to be emphasized

Beta-adrenergic blockers, Stress, and QOL

Clinical trial using beta blockade and stress reduction techniques

Outcomes- 1-Overall Survival 2-Improved QOL

Translational outcomes-biologic stress markers

2nd Annual Houston Cervical Cancer Summit

Convened by: Cervical Cancer-Free Texas, Cervical Comp Cancer Workgroup, Houston Community College Coleman College for Health Sciences and the Gynecologic Department at MD Anderson Cancer Center.

SAVE THE DATE:

Tuesday, January 29, 2013 8:00 a.m. – 4:00 p.m. United Way of Greater Houston

50 Waugh Drive

Houston, Texas 77007

Registration opens in December.

Registration Fee: \$25

Cervical Cancer Survivors attend for FREE.

Linda Leach at: lileach@mdanderson.org or (713) 563-1218.



Women's (extremely unnecessary)

Tough

Fight

(WTF!) ©

Known cause... HPV

Belief barriers

Screening test... Pap smear (HPV test)

Barriers to screening and follow up

A preventative vaccine

Barriers to access and acceptability

Long preinvasive development stage... 3-10 years

Barriers to follow up

Curable preinvasive stage... leep, cone, hysterectomy

Missed opportunities

Curable early stage... radical hysterectomy

Missed opportunities



YO! Cervical Cancer Survivors!!!

- Unite!
- * Have a voice! Be heard!
- * Lobby for vaccination and education in schools
- * Lobby for money
- * Know sources for help-
 - * http://www.foundationforwomenscancer.org/
 - * http://www.gog.org/
 - * http://www.cervicalcancerfreeamerica.org/
 - * http://clinicaltrials.gov/
- * Raise awareness and funding
 - * "disease of the developing world"
 - * "its only 4000 women" Are they serious????