

Cervix Cancer History

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Disclosure

I have no disclosure to report.

Objectives

Correlate the timeline effect of different diagnostic tools and cervical cancer

- USA incidence
- Worldwide incidence
- Mortality rate
- New tools for diagnosis and prevention

Tools of Diagnosis

- | | |
|-------------|---|
| ➤ 1826 | Lugol |
| ➤ 1933 | schiller staining |
| ➤ 1933, | patients history |
| ➤ 1933 | physical examination and biopsy. |
| ➤ 1921 | Colposcope, (USA 1960) |
| ➤ 1926- 48, | Cervical cytology or Pap smear |
| ➤ 1950-60 | Organized screening with cervical cytology |
| ➤ 1980-1990 | HPV etiology and cause for cancer established |
| ➤ 1990 | Molecular screening |
| ➤ 2006 | Vaccination for eradication |

Meigs book, page 9; 1933
Schiller W. Early Diagnosis of
Carcinoma of the Cervix, Surg Gyn
and Obs, 56:210-22, 1933

Diagnostic Tools to Stage Cancer

Stage	Time	Tools	stage of Ca
➤ 1	1800-	history / P E	3 - 4
➤ 2	1933	staining	↓
➤ 3	1940	cytology	↓
➤ 3 a	1950-80	screening	↓
➤ 3 b	1980	HPV	↓
➤ 4a	90-00	Pap +HPV	↓
➤ 4b	2000	vaccine	1-0

Meigs Theory in 1933

- Early diagnosis is the key to cure.
- Pay attention to the symptoms especially discharge >6 months.
- Surgery or radiation is the 2nd key to cure
- What is the cause of cervical cancer?

Meigs book 1933

Advocated for Early Detection

DR Meigs strategy

“Propaganda surpasses its harm”.

Meigs book IN 1933

Cancer and Schiller Staining

- Carcinoma of the cervix uteri can be diagnosed in the preinvasive stage and in the early invasive stage before the appearance of any symptoms and before the development of ulceration or tumor.
- The Schiller (Lugol) test is a definite aid in locating the optimal site for cervical biopsy.
- Cancer detection should be an integral part of every gynecological examination.

➤ Permanente Foundation Medical Bulletin. 1944 Oct;2(4):165-74

Schiller

- Mortality from cancer can be reduced only on a large scale. This presupposes that the public will be made to realize the importance of periodic examinations and that every one of them will be given a complete examination to detect cancer, regardless of the patient's complaint.



The First Screening in USA

American Society for Control of Cancer
and NCI grant

- 1940-1943 two clinics did screening
- Memorial hospital
- Philadelphia

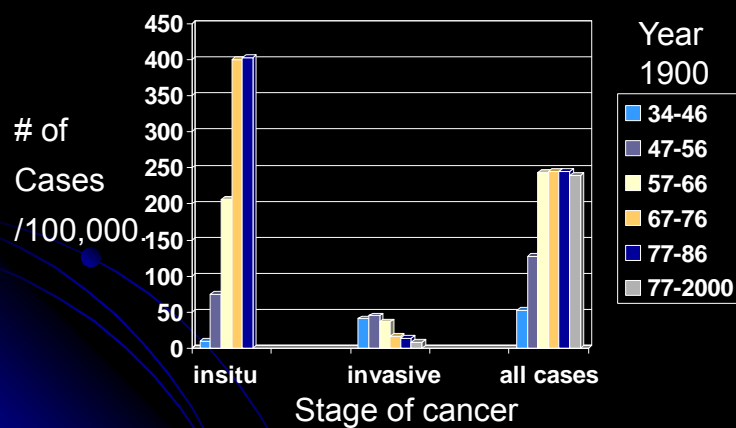
Incidence Over Time

Cervical cancer is the most common cancer in the world
2nd cause of death in developing but #12 cause in developed countries
with cervix cancer screening.

<u>Sites</u>	<u>Time period</u>	<u>% /100,000</u>
Cervix	1900 -1933	24.1 to 37.1
	2008	7.5
Breast	1900- 1933	22.5

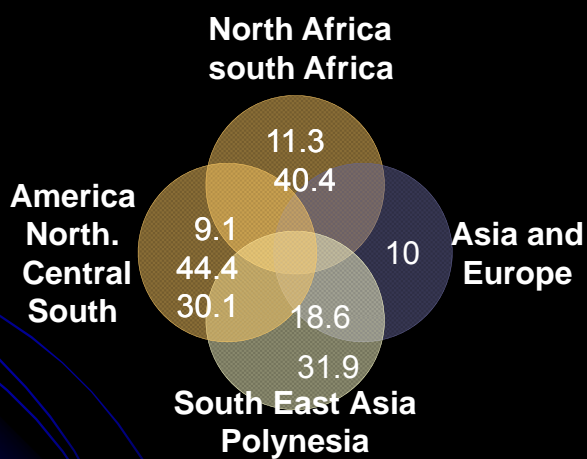
Meigs book of gynecology 1933' 1
ACS statistic 2008

Incidence of Cancer



Parsons and Sommers chapter 5mcabcer if cervix pages 1303; 1978
ACS 2008 statistics

Incidence Worldwide/100,000.



Incidence in Canada After screening

Canadian screening task force for cervical cancer prevention showed the similar drop in the cancer incidence

American J Ob - GYN 1974

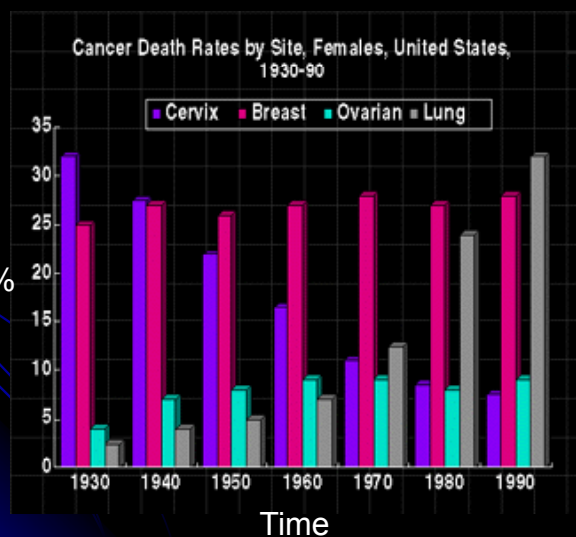
Canadian and Scottish Task Force

From 1960 to 1970

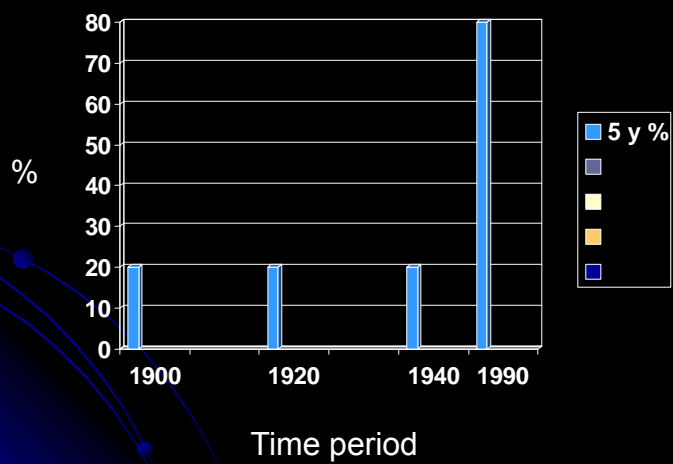
- The mortality rate from Cervical cancer dropped in 50%

CMA JOURNAL/JUNE 5,
1976/VOL. 114
Lancet 1: 1221; 1974

Cancer Death



5 Years Survival



HPV

- Has changed our focus on how to manage Cervical cytology.
- It can guide the clinician and has lowered the # of office colposcopies
- Vaccination may eradicate cancer all together.
- HPV can be used for treatment?

Summary

- Cervical cytology has decreased the incidence, M & M from cervical cancer
- The HPV discovery has shed light on cervical cancer etiology, detection, possible treatment and eradication.
- Our goal should focus on cancer prevention
- Door is open for future discovery of molecular and individualized treatment.

Additional References

- Papanicolaou GN; Traut HF. Diagnosis of Uterine Cancer by Vaginal Smear. New York, Commonwealth Fund, 1943.
- Meigs VV, et al. Value of the Vaginal Smear in the Diagnosis of Uterine Cancer, Surg, Gyn and Obs, 77:449-61, 1943.
- Schiller W. Early Diagnosis of Carcinoma of the Cervix, Surg Gyn and Obs, 56:210-22, 1933.
- ACS website

Thank you

Any questions?