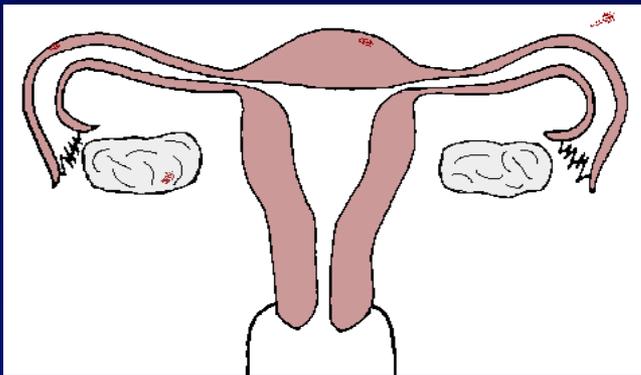


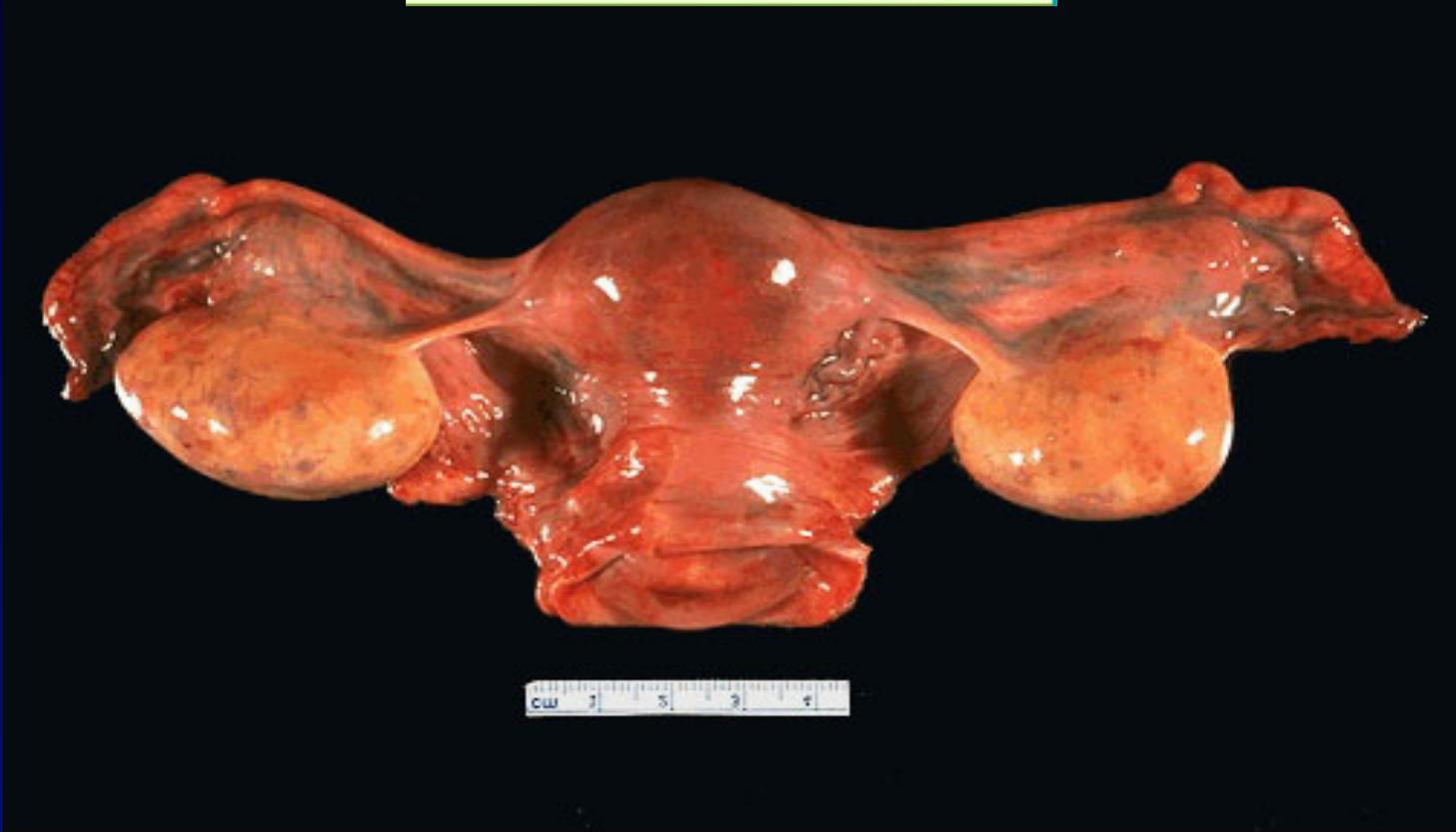
Surgical Approaches for Advanced Ovarian Cancer



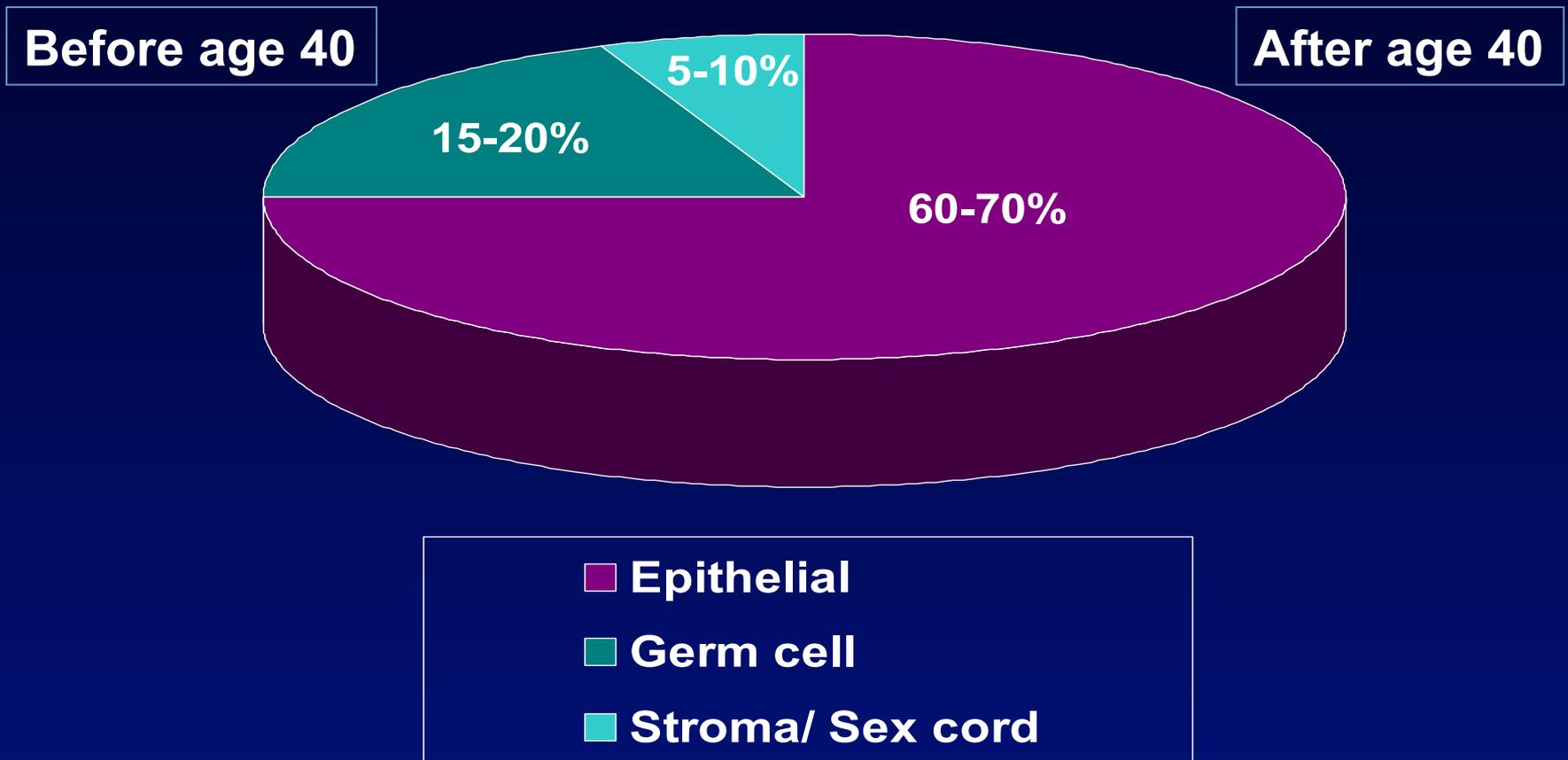
Wilberto Nieves-Neira, MD
Associate Professor
Division of Gynecologic Oncology
Associate Program Director
Gynecologic Oncology Fellowship Training Program
Department of Obstetrics and Gynecology
Feinberg School of Medicine, Northwestern University



*September Is
Ovarian Cancer
Awareness
Month* 



Types of Ovarian Cancer





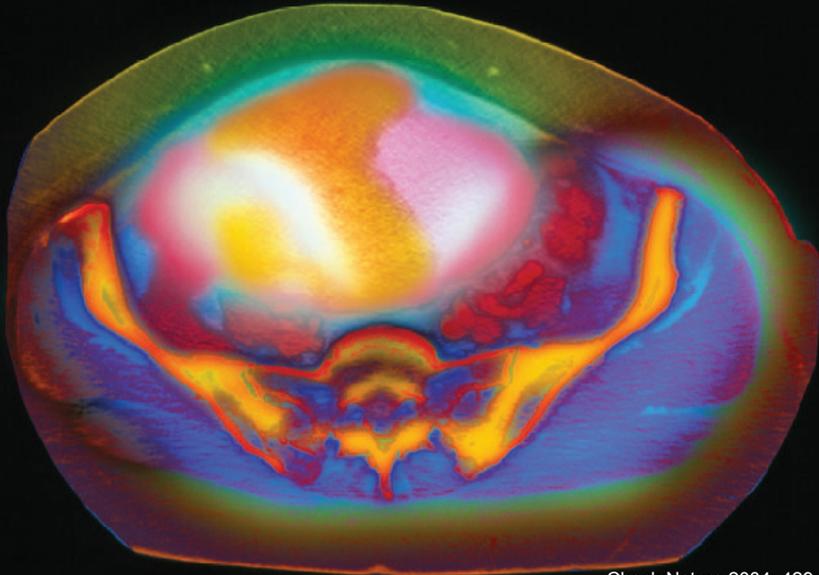
Epithelial Ovarian Carcinoma

Ovarian, fallopian tube and primary peritoneal carcinomas are grouped together as one entity

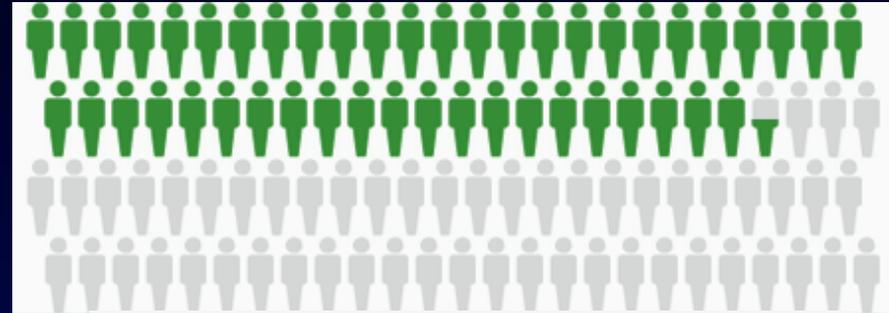
- ❖ Same clinical presentation, natural history
- ❖ Similar histology (microscopic appearance)
- ❖ Same outcomes with surgery and response to chemotherapy
- ❖ Same recurrence patterns

Lack of Effective Screening Strategies

75% present in Stages IIIc and IV



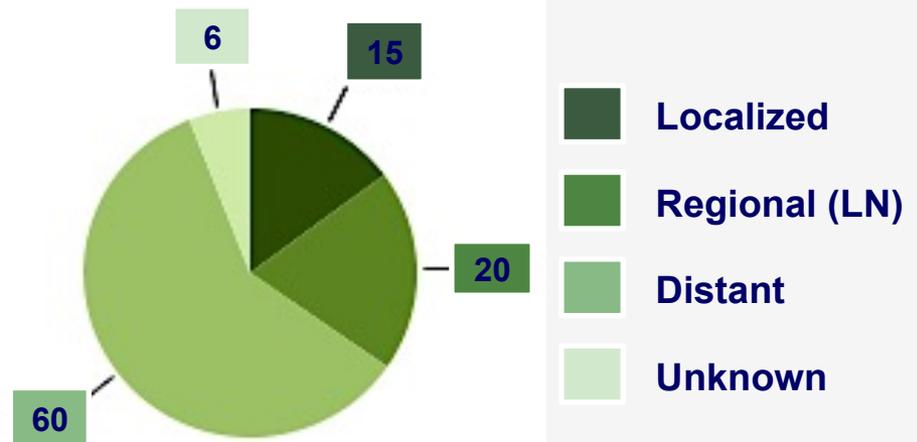
Check Nature 2004: 429; 496.



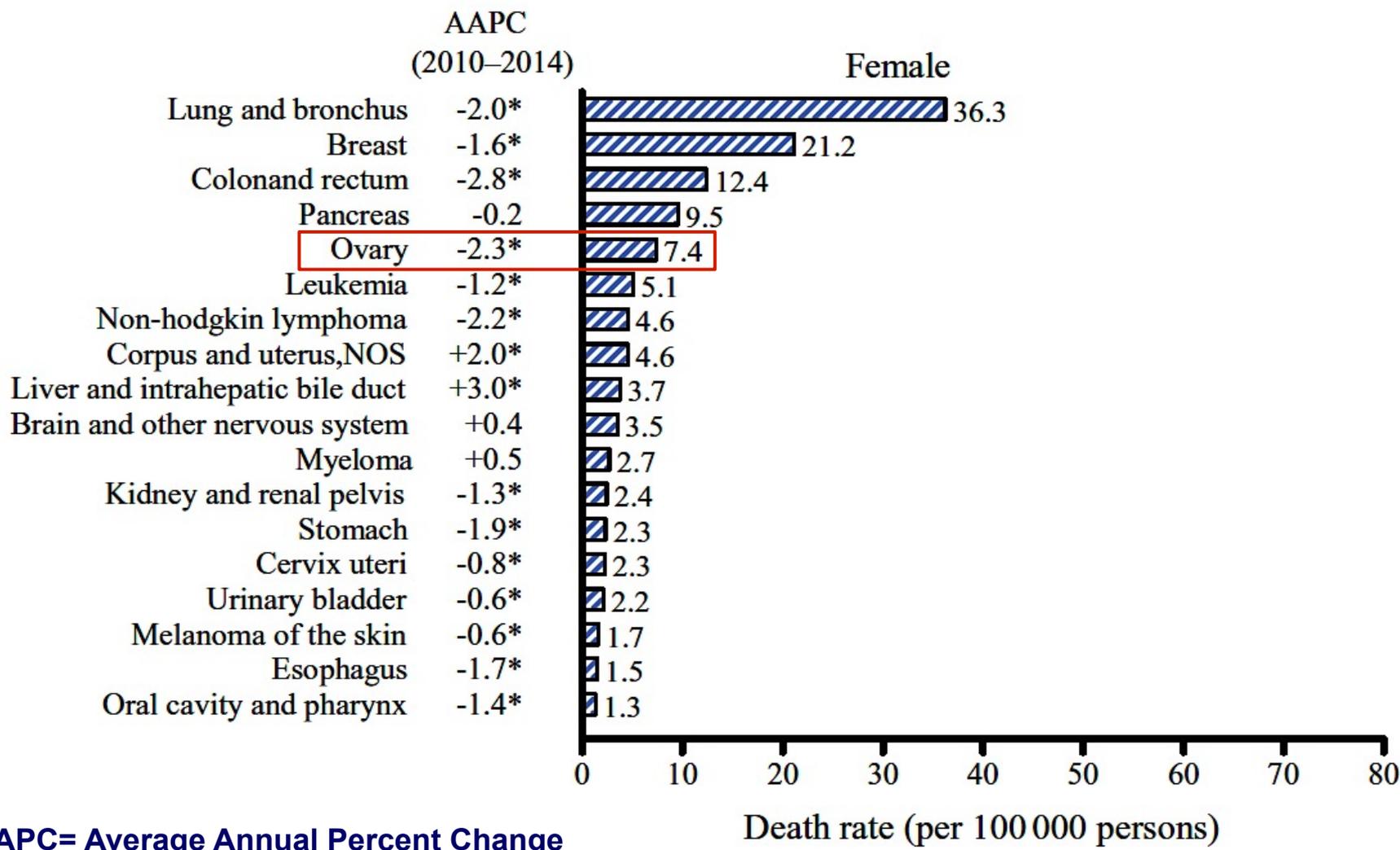
5-year Survival

46.5 %

SEER 18 (2007- 2013)



Age Standardized Death Rates in Women



15HZ

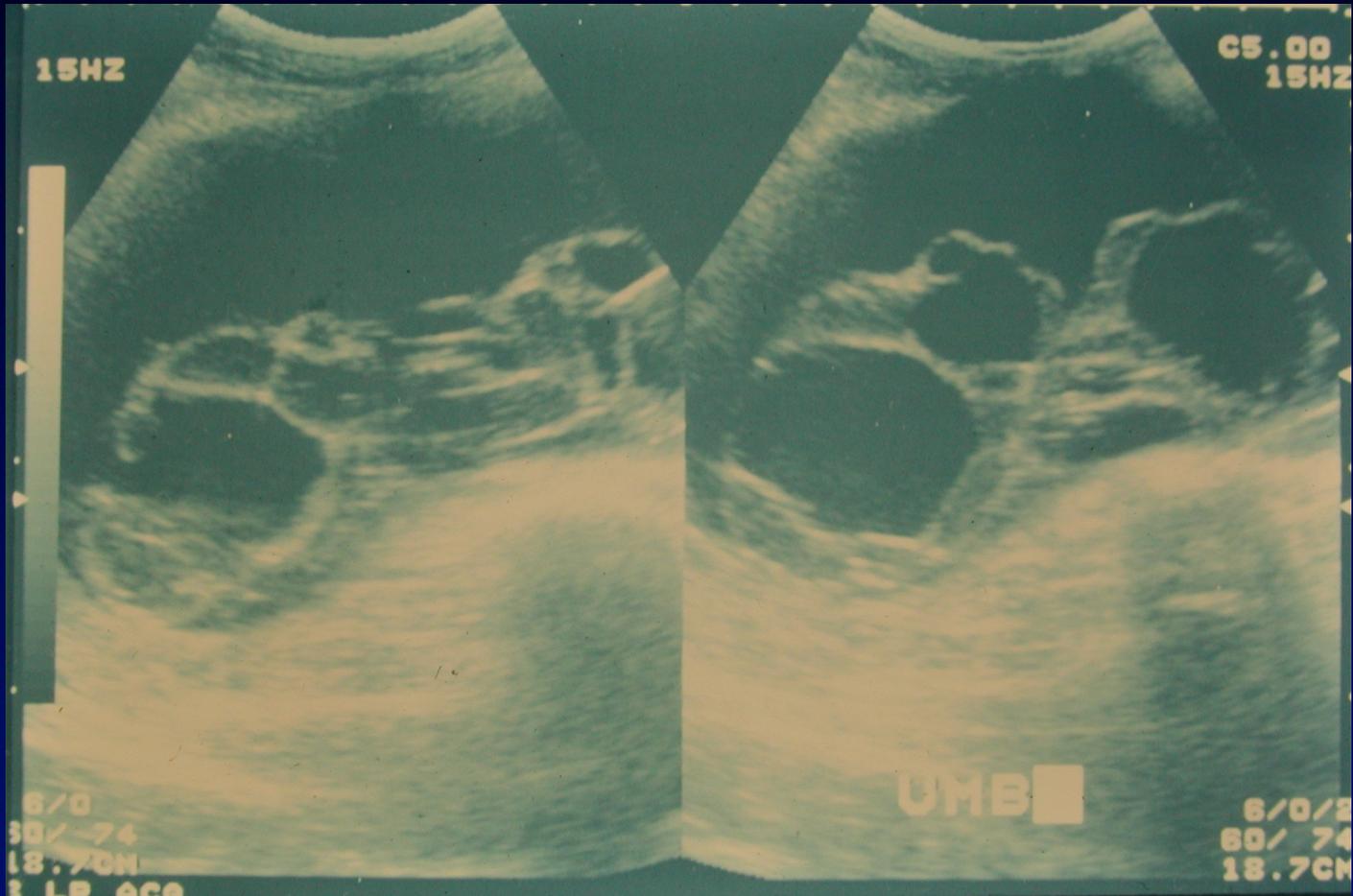
C5.00
15HZ



6/0
30/74
18.7CM
1 LB ACC

UMB

6/0/2
60/74
18.7CM

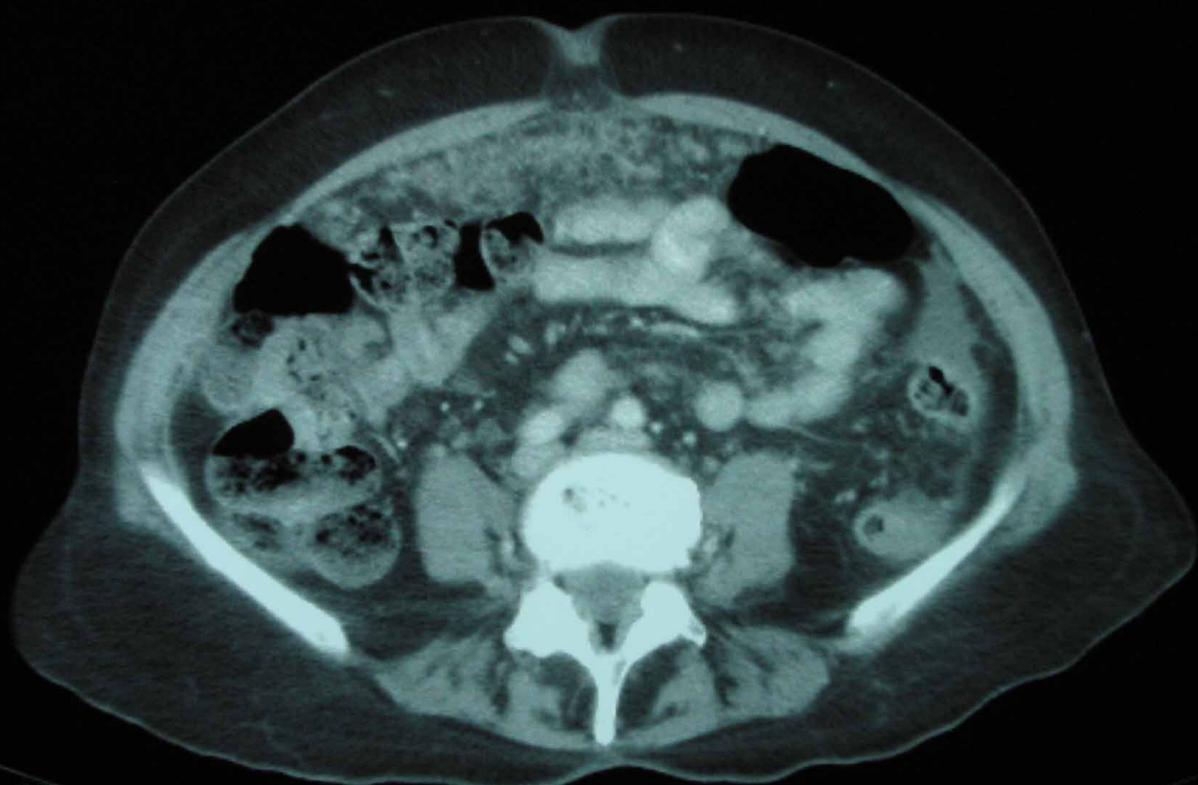


: 1392
DFOV:0
ALG:

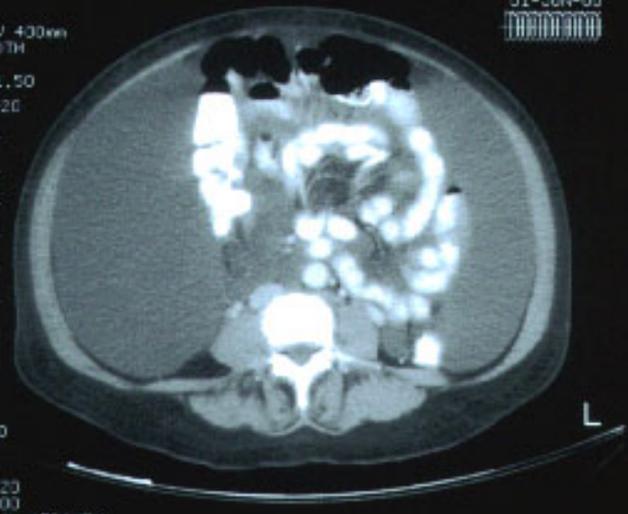
R
1
9
7

NONI

15:01:22
CONTRAST:OPTI
5 mm
TILT:0
A0:200

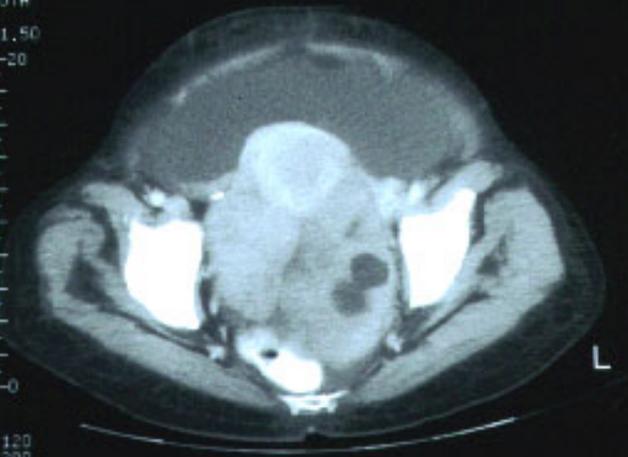


Ex: 130305
In: 153-R
C+
DFOV: 400mm
SMOOTH
STD
PF=1.50
01-JUN-00



kV 120
mA 200
SPIRAL ABDOMEN
S: 0mm / S: 0mm
Tilt 0.0
1.00 11:11:47.3 AM

Ex: 130305
In: 153-R
C+
DFOV: 400mm
SMOOTH
STD
PF=1.50
01-JUN-00



kV 120
mA 200
SPIRAL ABDOMEN
S: 0mm / S: 0mm
Tilt 0.0
1.00 11:11:59.3 AM

General Treatment Plan

Establish the diagnosis:

Cytology on ascites fluid

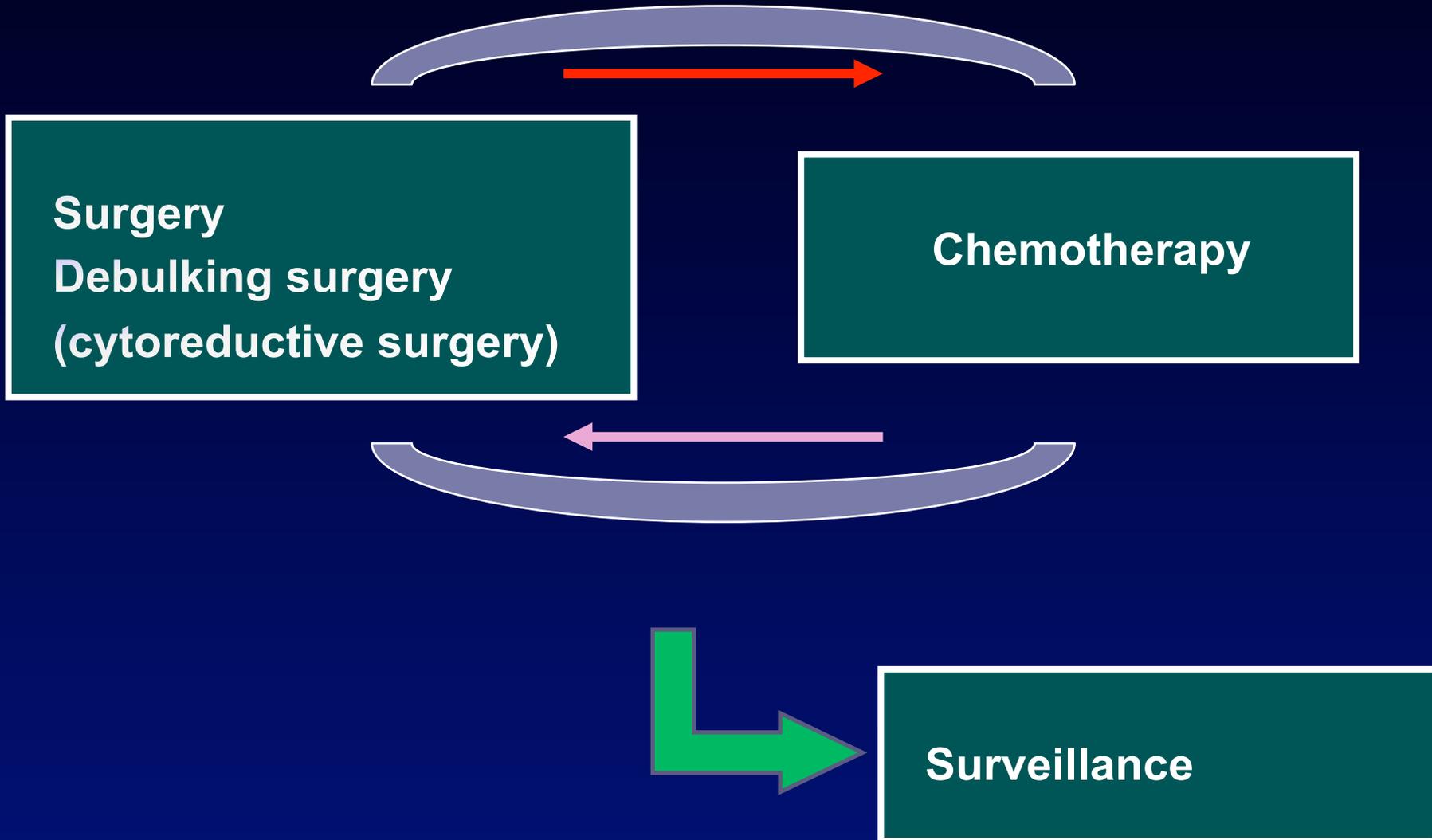
Primary surgery

Needle biopsy of mass

Laparoscopic biopsy

Reliable pathology is essential.

General Treatment Plan



Upfront Surgical Intervention

Primary Debulking Surgery (PDS)
Tumor debulking

Exploratory laparotomy,
“open”
Exceptions for minimally
invasive approach

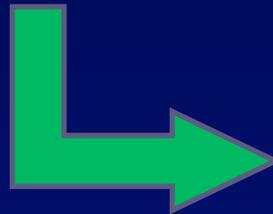
Chemotherapy



Paclitaxel + carboplatin
Q 3 wks (or dose dense), 6 cycles
80- 90 % CR

Surveillance

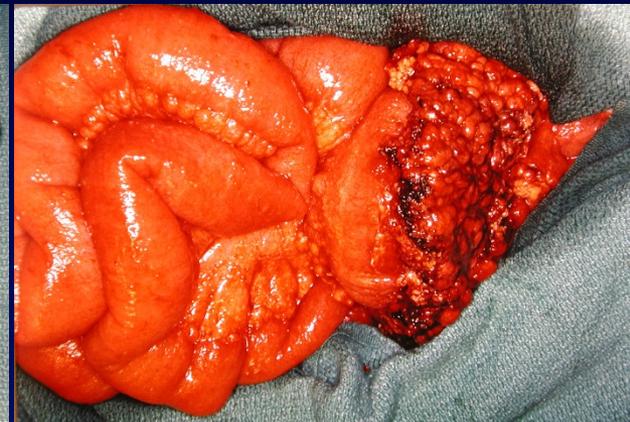
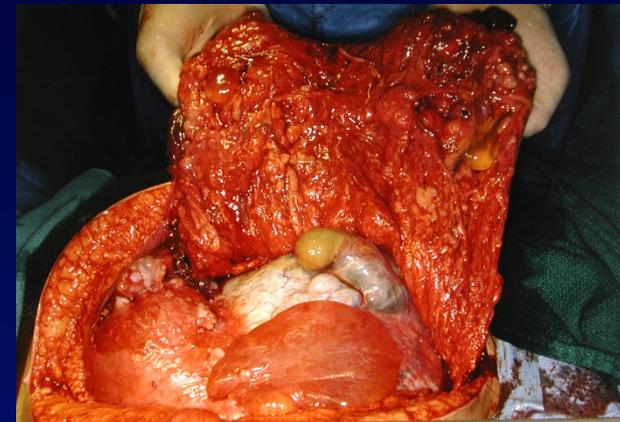
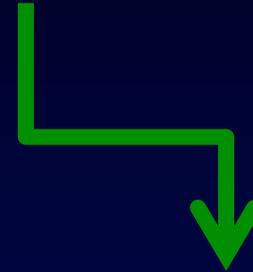
80 % recurrence



Advanced Stage Ovarian Carcinoma

Debulking

- To remove as much tumor as possible
- Goal: residual disease less than 1 cm
 - Survival advantage



Cytoreductive Surgery: GOG and Chemotherapy Trials

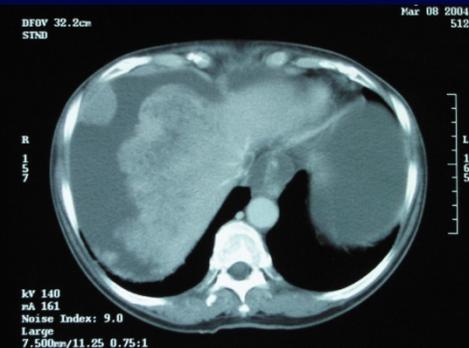
**Volume of residual disease is directly
correlated with survival.**

**22 month improvement in overall survival
Retrospective data**

Advanced Stage Ovarian Carcinoma

Extensive disease

- Not resectable to R0
- Stage IV
- Poor performance status or nutrition status
- Multiple medical comorbidities



NeoAdjuvant
Chemotherapy

Alternative Approach: Upfront Chemotherapy

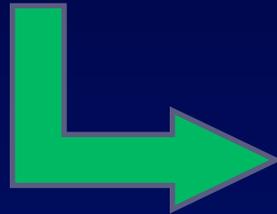
Neoadjuvant Chemotherapy

Paclitaxel + carboplatin
Q 3 wks (or dose dense), 3
cycles

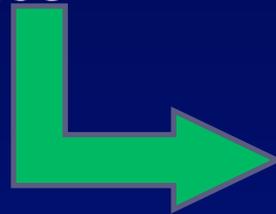


Interval Tumor Debulking
(IDS)

Adjuvant Chemotherapy



Paclitaxel + carboplatin
Q 3 wks (or dose dense), 3
cycles



Surveillance

80 % recurrence

Advanced Stage Ovarian Carcinoma

Neoadjuvant Chemotherapy

- Paclitaxel/ carboplatin

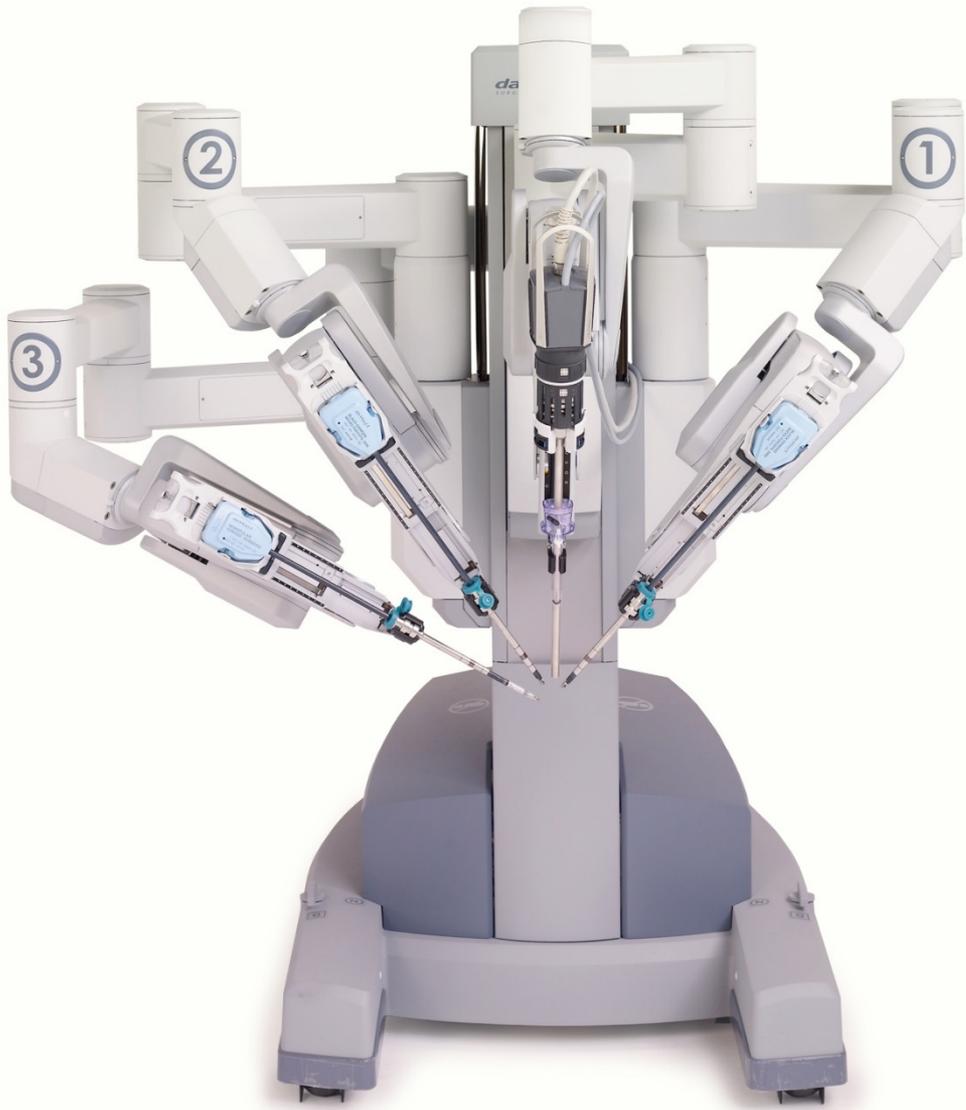


Surgery

Significant tumor volume
reduction

- **Laparotomy:**
 - Gross residual

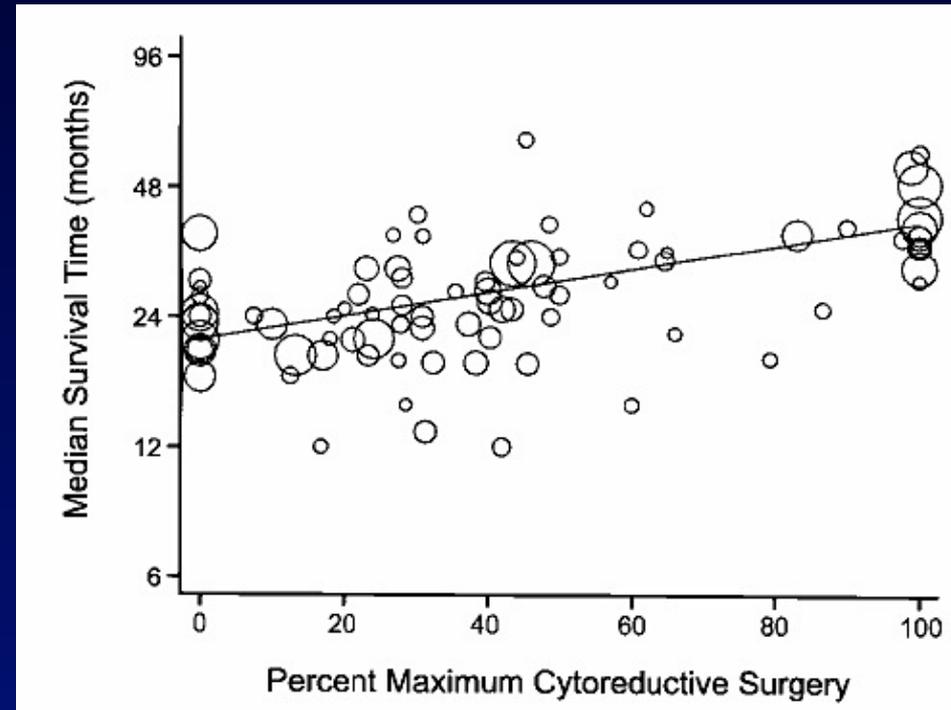
- **Minimally invasive**
 - Robotic versus laparoscopy
 - Minimal residual tumor



**Changing Definition for Optimal
Debulking: R0 Resection**

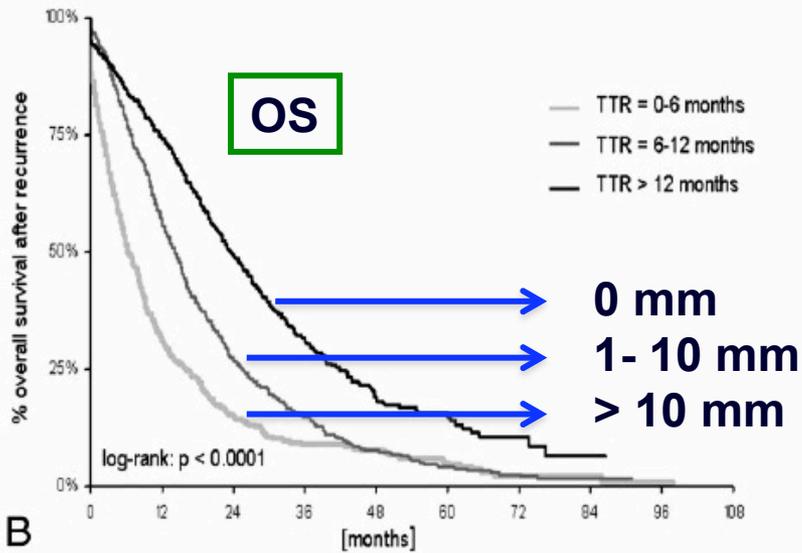
Maximal Cytoreductive Surgery: Meta-Analysis

- Stage III and IV
- 81 cohorts
- 1989 to 1998
- n= 6,885
- Platinum based chemoTx



Bristow et al. J Clin Oncol. 2002; 20:1248-1259.

The Case for R0 Resection



TTR 0-6	682	209	94	45	29	12	4	3	1	0
TTR 6-12	704	388	172	87	24	12	5	2	0	0
TTR >12	989	654	345	133	41	20	5	2	0	0

Regression: OS HR (95% CI)

1- 10 mm vs 0 mm **2.70 (2.37-3.07)**

> 10 mm vs 1- 10 mm **1.34 (1.21-1.49)**

Log-rank: $p < 0.0001$

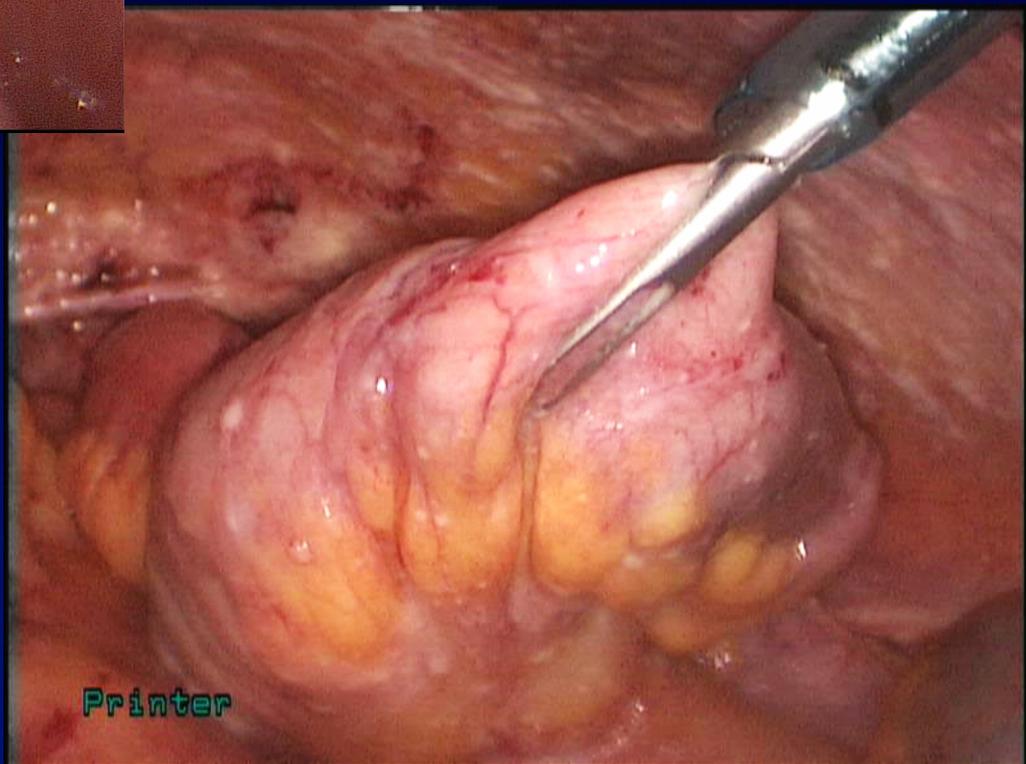
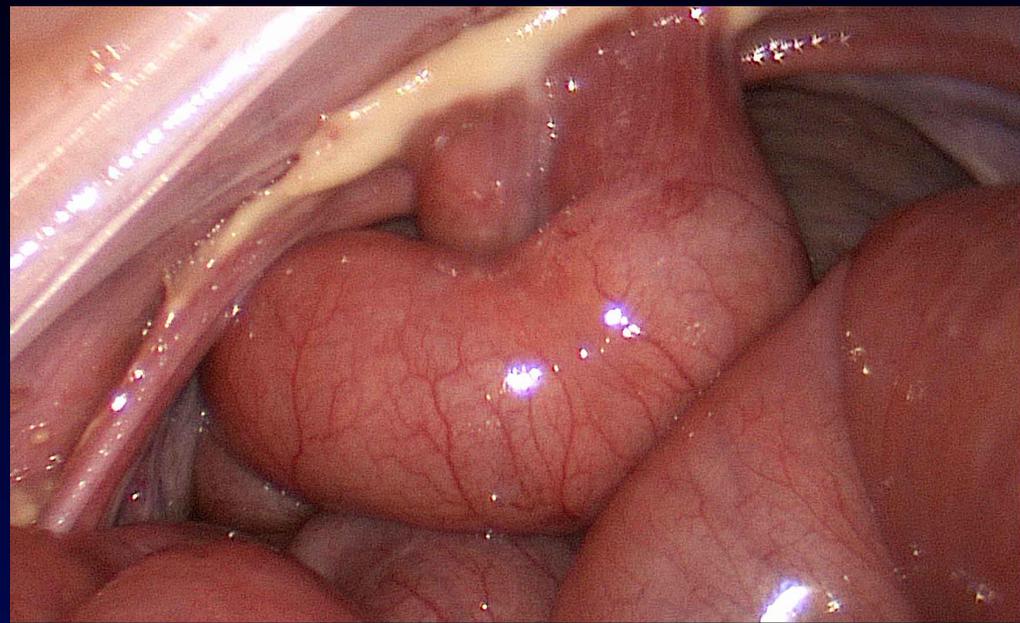
- 3 prospective randomized trials (AGO-OVAR 3, 5, and 7) investigating platinum-taxane based chemotherapy regimens in advanced ovarian cancer
- Conducted between 1995 and 2002.
- Total of 3126 patients

Assessing Feasibility of Achieving R0 Resection

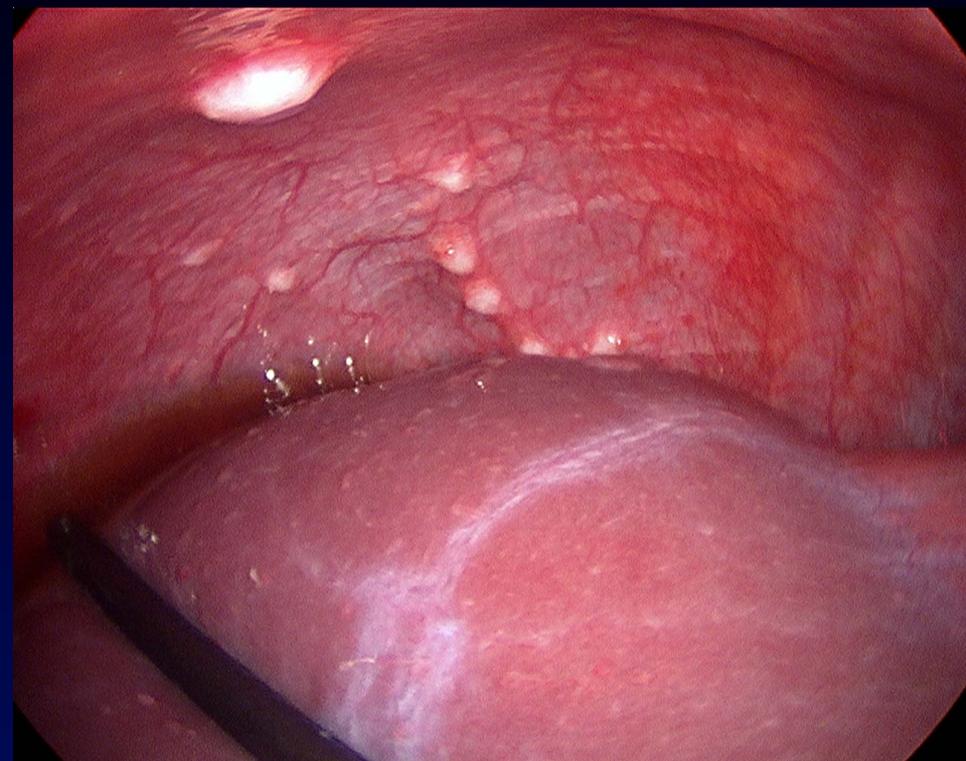
Elements of the Laparoscopic Predictive Index Value: Fagotti Score

- **Omental cake**
- **Peritoneal/ diaphragmatic carcinomatosis**
- **Mesenteric retraction**
- **Bowel/ stomach infiltration**
- **Spleen/ liver superficial metastasis**

2 points each: Score of 8 or 10= 100% suboptimal debulking



Printer



Laparoscopic Assessment: USA Experience

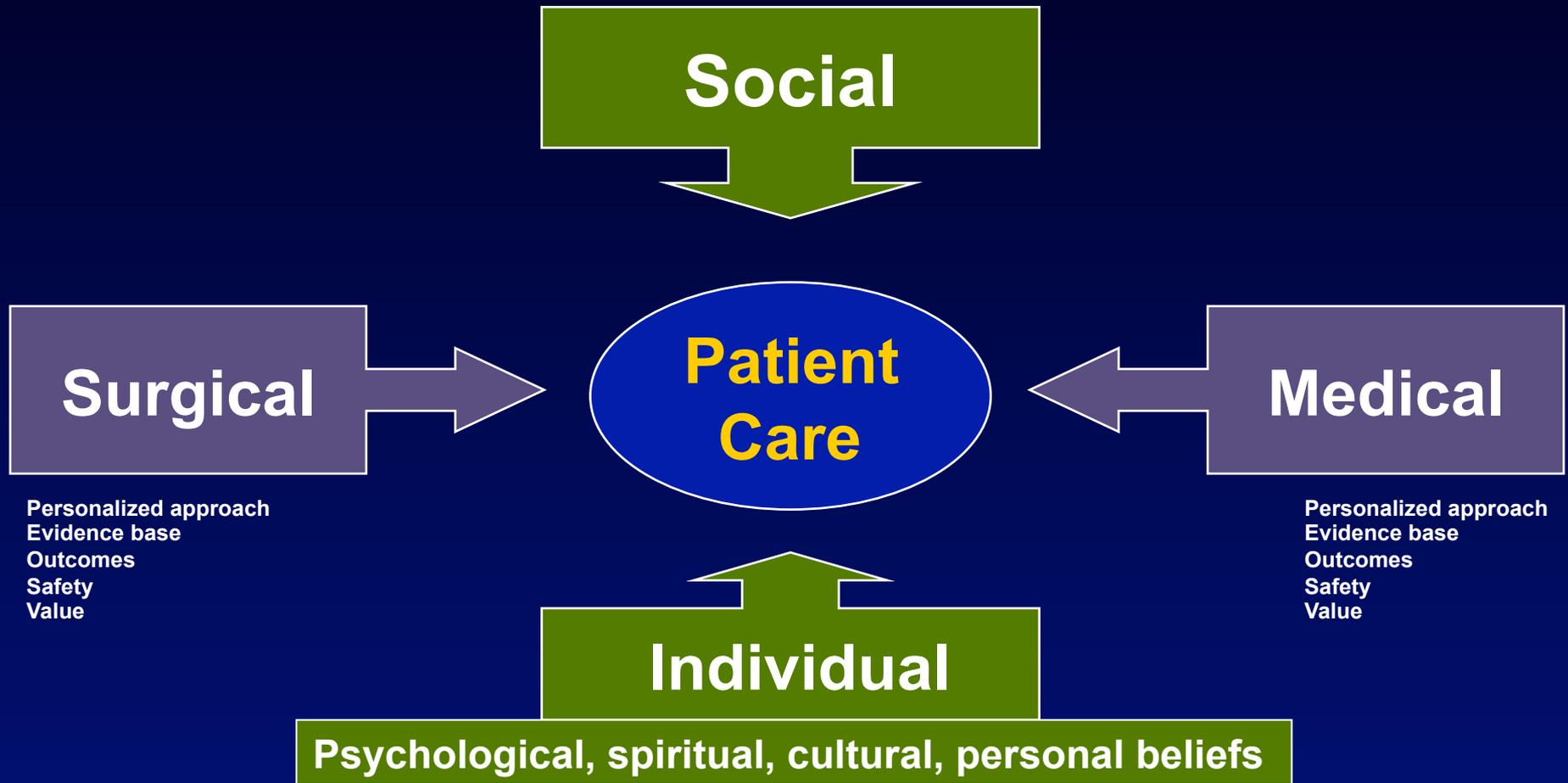
- **Adoption of laparoscopic assessment at MD Anderson Cancer Center**
 - Triage algorithm modified from Fagotti
 - n= 33
 - No operative complications



SGO/ ASCO Clinical Practice Guideline: Recommendations for NACT

- **Stage IIIC with disease too extensive to achieve optimal debulking**
 - Based on imaging or laparoscopic scoring
 - Ideally to no visible disease
- **Stage IV disease (complete resection < 10%)**
- **Poor performance status**
- **No access to experienced gynecologic oncologist/ surgical team**
- **Elderly or extreme obesity patients when radical surgery appears to be required**

Treatment Plan: Spectrum of Care



Conclusions

- **The treatment of epithelial ovarian cancer continues to be combination of surgery and chemotherapy.**
 - **Upfront surgery: greater emphasis on complete resection.**
 - **Neoadjuvant chemotherapy**
- **Decision to choose the surgical strategy is a multifactorial process with the goal of maximizing outcomes, minimizing complications and ultimately improving quality of life.**

To see a world in a grain of sand,
And a heaven in a wild flower,
Hold infinity in the palm of your hand,
And eternity in an hour.

William Blake

