Adjunctive Surgery

Disseminated gynaecological cancer

Prof. Leon Snyman

Gynaecological Oncology Unit

Department Obstetrics & Gynaecology

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Denkleiers • Leading Minds • Dikgopolo tša Dihlalefi

Introduction

- Adjunctive surgery definition
- Gynaecological cancers
  - Vulva
  - Vagina
  - Cervix
  - Uterus
  - Ovary and Fallopian tubes

Ovarian cancer

- Life time risk 1.4%
- Mean age 63 years
- 75% stage III when diagnosed
- FIGO staging

Staging ovarian and primary peritoneal carcinoma (TNM and International Federation of Gynecology and Obstetrics [FIGO])

Primary tumor (T)*

TNM categories	FIGO stages	Definition
TX		Primary tumor cannot be assessed
T0		No evidence of primary tumor
T1	I	Tumor limited to ovaries (one or both)
T1a	IA	Tumor limited to one ovary; capsule intact, no tumor on ovarian surface. No malignant cells in ascites or peritoneal washings.
T1b	IB	Tumor limited to both ovaries; capsules intact, no tumor on ovarian surface. No malignant cells in ascites or peritoneal washings.
T1c	IC	Tumor limited to one or both ovaries with any of the following: capsule ruptured, tumor on ovarian surface, malignant cells in ascites or peritoneal washings
T2	II	Tumor involves one or both ovaries with pelvic extension
T2a	IIA	Extension and/or implants on uterus and/or tube(s). No malignant cells in ascites or peritoneal washings.
T2b	IIB	Extension to and/or implants on other pelvic tissues. No malignant cells in ascites or peritoneal washings.
T2c	IIC	Pelvic extension and/or implants (T2a or T2b) with malignant cells in ascites or peritoneal washings
T3	III	Tumor involves one or both ovaries with microscopically confirmed peritoneal metastasis outside the pelvis
T3a	IIIA	Microscopic peritoneal metastasis beyond pelvis (no macroscopic tumor)
T3b	IIIB	Macroscopic peritoneal metastasis beyond pelvis 2 cm or less in greatest dimension
T3c	IIIC	Peritoneal metastasis beyond pelvis more than 2 cm in greatest dimension and/or regional lymph node metastasis

Regional lymph nodes (N)

TNM categories	FIGO stages	Definition
NX		Regional lymph nodes cannot be assessed
N0		No regional lymph node metastasis
N1	IIIC	Regional lymph node metastasis

Distant metastasis (M)

TNM categories	FIGO stages	Definition

Staging ovarian and primary peritoneal carcinoma (TNM and International Federation of Gynecology and Obstetrics [FIGO])

Primary tumor (T)*		
TNM categories	**FIGO stages**	**Definition**
TX		Primary tumor cannot be assessed
T0		No evidence of primary tumor
T1	I	Tumor limited to ovaries (one or both)
T1a	IA	Tumor limited to one ovary; capsule intact, no tumor on ovarian surface. No malignant cells in ascites or peritoneal washings.
T1b	IB	Tumor limited to both ovaries; capsules intact, no tumor on ovarian surface. No malignant cells in ascites or peritoneal washings.
T1c	IC	Tumor limited to one or both ovaries with any of the following: capsule ruptured, tumor on ovarian surface, malignant cells in ascites or peritoneal washings
T2	II	Tumor involves one or both ovaries with pelvic extension
T2a	IIA	Extension and/or implants on uterus and/or tube(s). No malignant cells in ascites or peritoneal washings.
T2b	IIB	Extension to and/or implants on other pelvic tissues. No malignant cells in ascites or peritoneal washings.
T2c	IIC	Pelvic extension and/or implants (T2a or T2b) with malignant cells in ascites or peritoneal washings
T3	III	Tumor involves one or both ovaries with microscopically confirmed peritoneal metastasis outside the pelvis
T3a	IIIA	Microscopic peritoneal metastasis beyond pelvis (no macroscopic tumor)
T3b	IIIB	Macroscopic peritoneal metastasis beyond pelvis 2 cm or less in greatest dimension
T3c	IIIC	Peritoneal metastasis beyond pelvis more than 2 cm in greatest dimension and/or regional lymph node metastasis

Regional lymph nodes (N)		
TNM categories	**FIGO stages**	**Definition**
NX		Regional lymph nodes cannot be assessed
N0		No regional lymph node metastasis
N1	IIIC	Regional lymph node metastasis

Distant metastasis (M)		
TNM categories	**FIGO stages**	**Definition**

Ovarian cancer

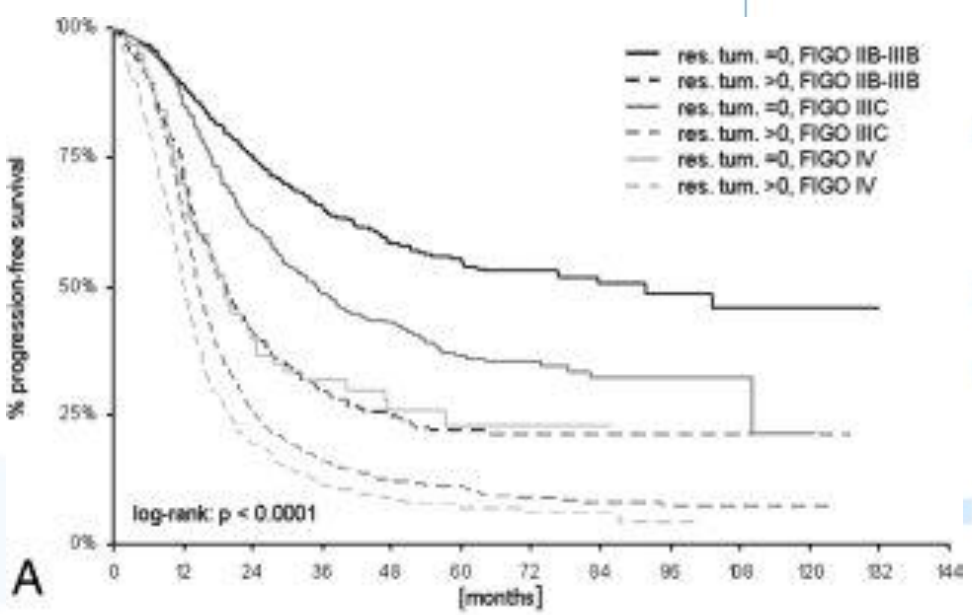
- Treatment
  - Primary surgery followed by adjuvant chemotherapy
  - NAC followed by interval debulking

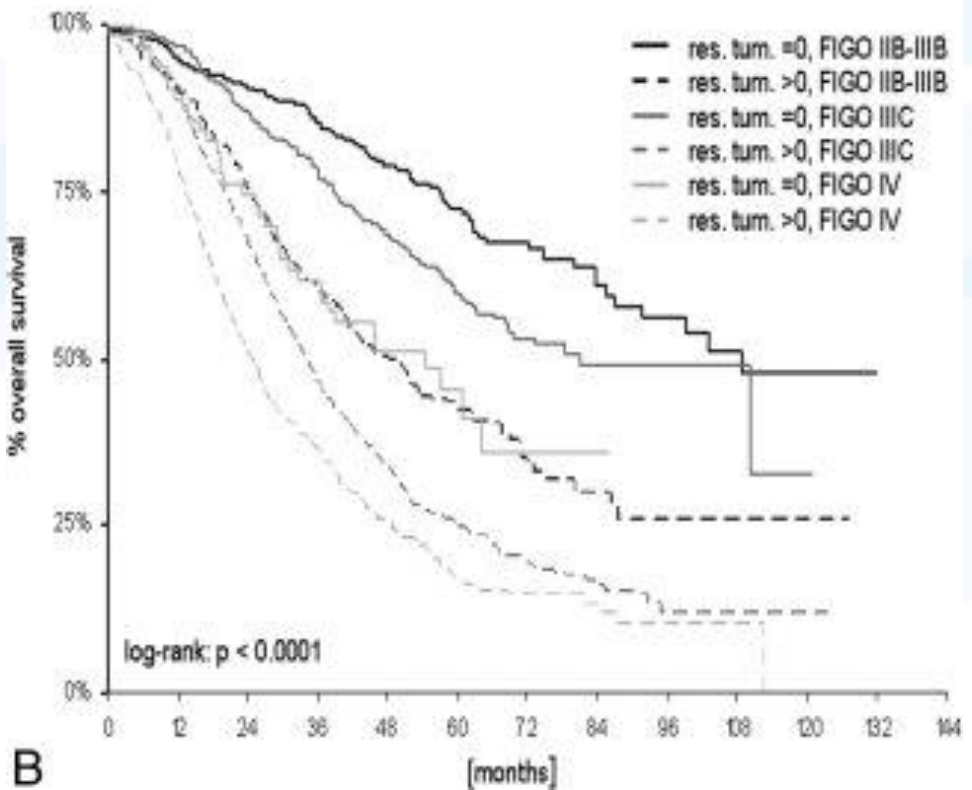
What influences prognosis

- Stage
- Quality of cytoreduction
- Skills and attitude surgeon
- Place of surgery

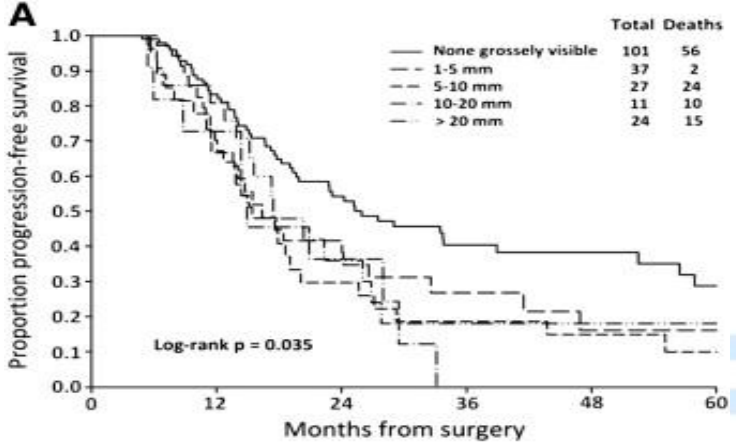
Objective

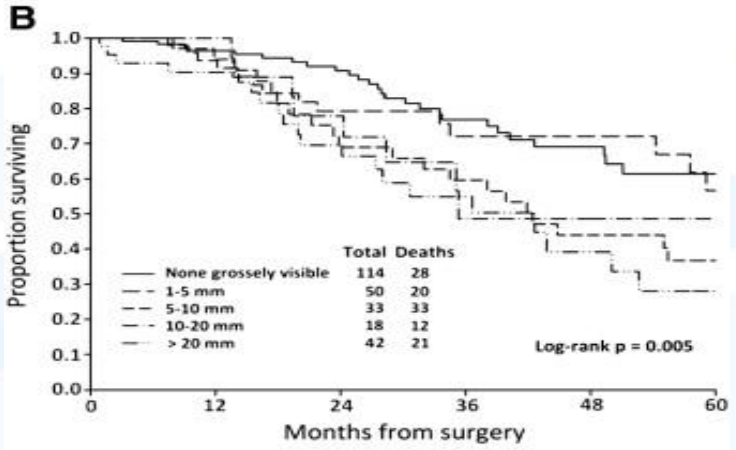
- Disease staging
- Optimal cytoreduction
  - No macroscopic disease
  - <1cm
  - >1cm

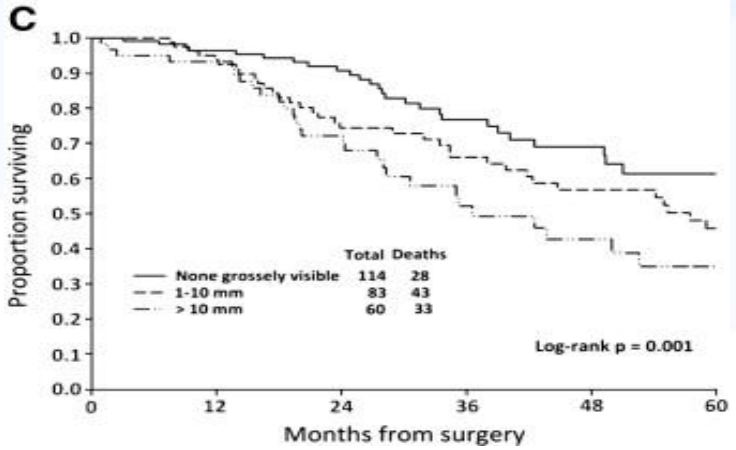




Du Bois et al.
Cancer March 2009 ;115 (6);1234-1244





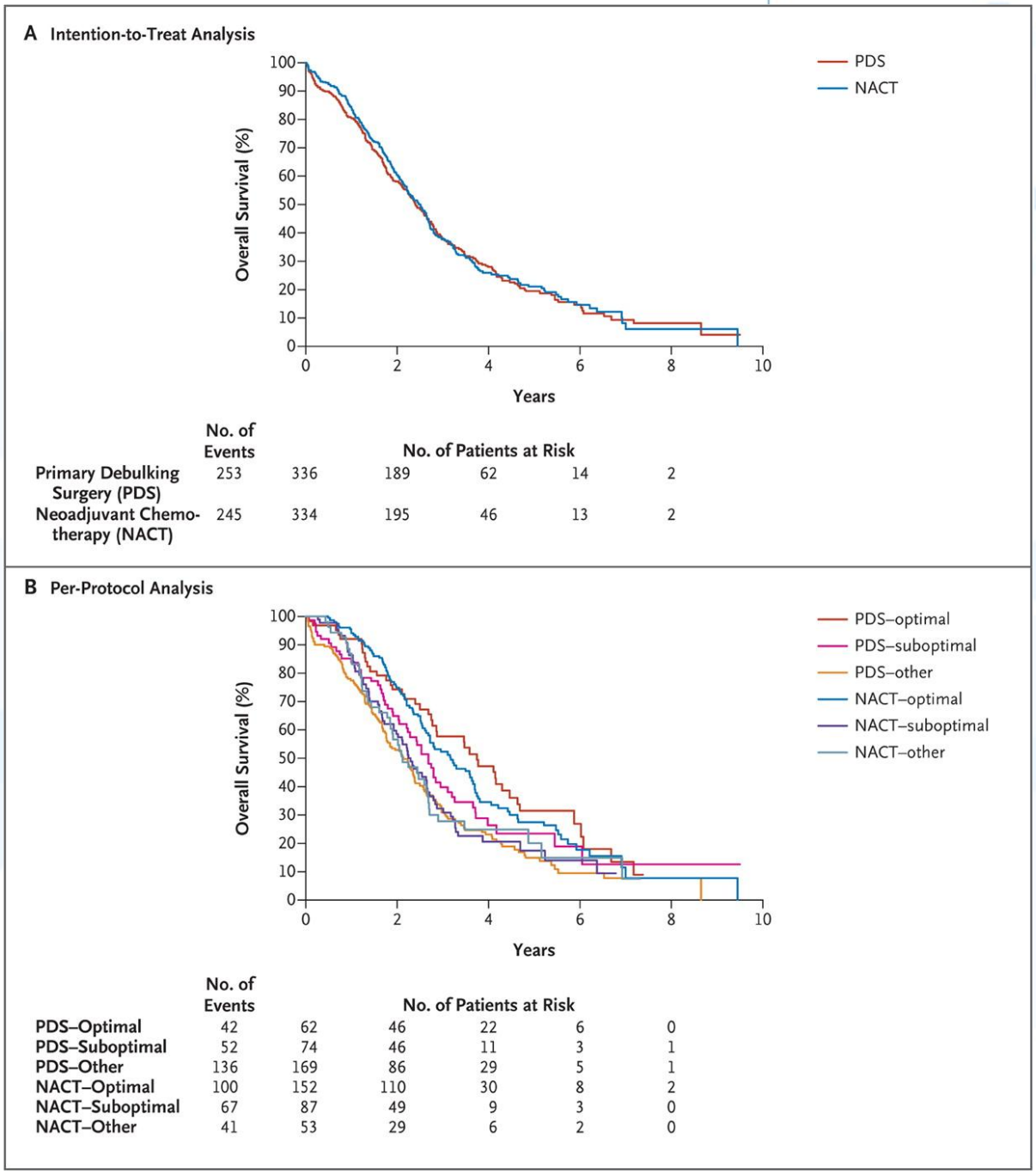


Peiretti et al.
Gynecologic Oncology
119 (2010) 259–264

PDS vs NACT and IDS

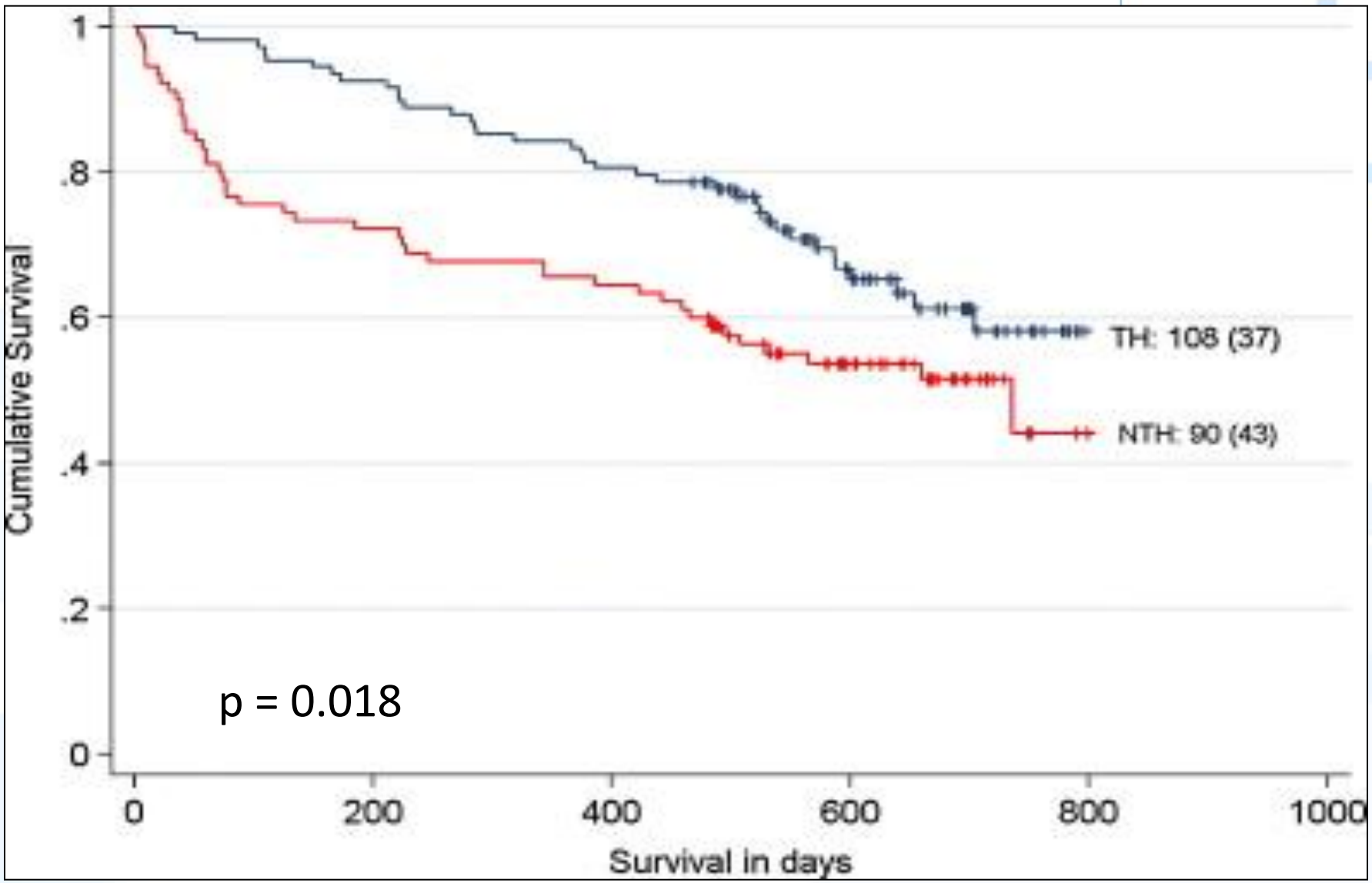
- Vergote et al. N Engl J Med 2010; 363:943-953

Vergote et al. N Engl J Med 2010; 363:943-953



Place of surgery

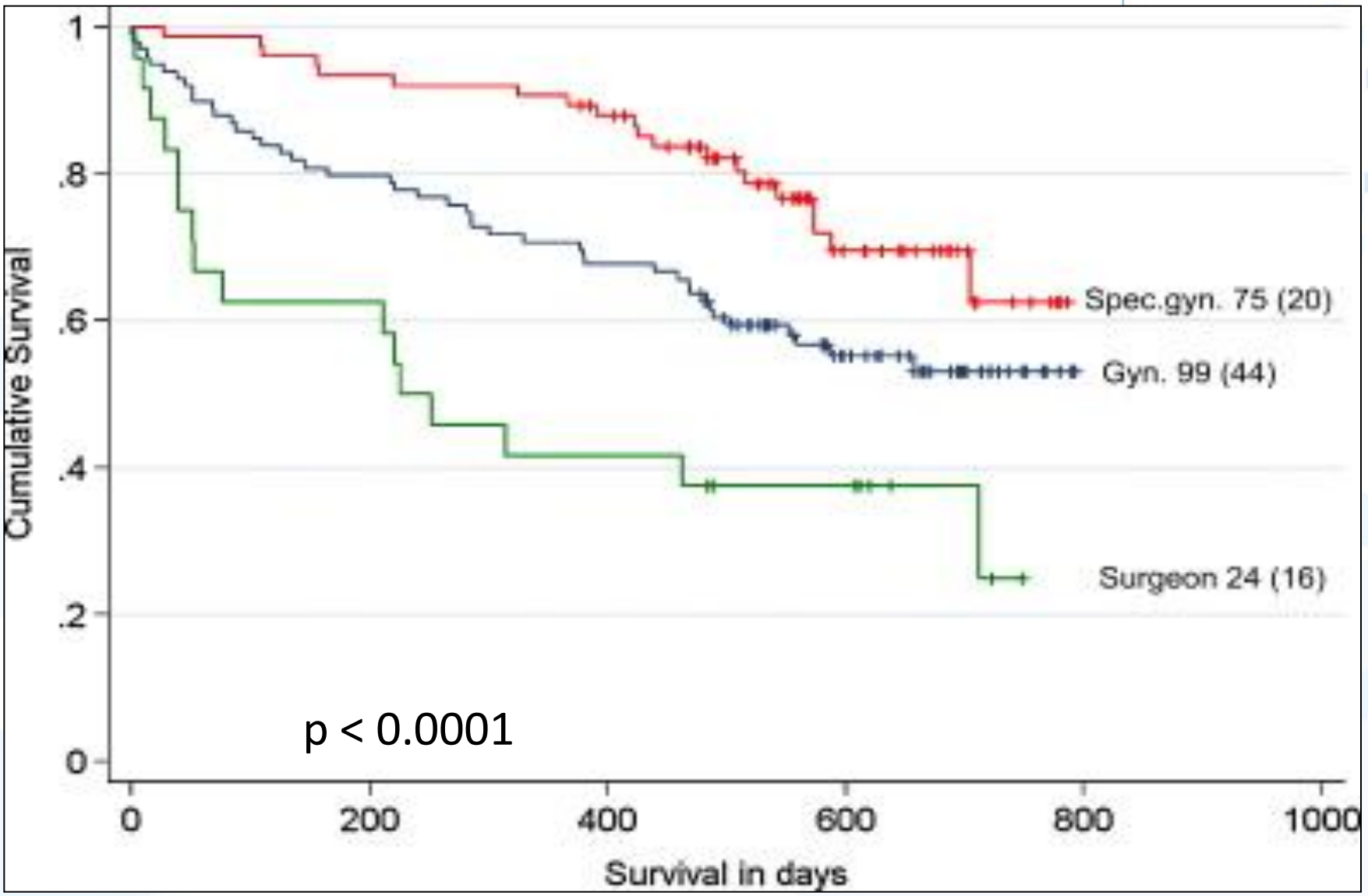
- Specialised units
  - Improved survival
  - ↑ chance of optimal debulking



Paulsen, T; Kjaerheim, K; Kaern, J; Tretli, S; Trope, C. **Improved short-term survival for advanced ovarian, tubal, and peritoneal cancer patients operated at teaching hospitals.** International Journal of Gynecological Cancer. 16 Supplement 1:11-17, February 2006.

Skills and attitudes

- The surgeon
  - Impacts on survival
  - Chance of obtaining optimal debulking



Paulsen, T; Kjaerheim, K; Kaern, J; Tretli, S; Trope, C. **Improved short-term survival for advanced ovarian, tubal, and peritoneal cancer patients operated at teaching hospitals.** International Journal of Gynecological Cancer. 16 Supplement 1:11-17, February 2006.

Survival rates

- General surgeon: 42%
- General gynaecologist:
- Gynaecological oncologist:

Survival rates

- General surgeon: 42%
- General gynaecologist: 67%
- Gynaecological oncologist:

Survival rates

- General surgeon: 42%
- General gynaecologist: 67%
- Gynaecological oncologist: 87%

More data showing this

- Olaitan A, Weeks J, Mocroft A, Smith J, Howe K, Murdoch J. **The surgical management of women with ovarian cancer in the south west of England**. Eur J Obstet Gynecol Reprod Biol 2001;85: 1824–30.
- 12 Curtin JP, Malik R, Venkatraman ES, Barakat RR, Hoskins WJ. **Stage IV ovarian cancer: impact of surgical debulking.** Gynecol Oncol 1997;64: 9–12.
- 13 Kehoe S, Powell J, Wilson S, Woodman C. **The influence of the operating surgeon's specialisation on patient survival in ovarian carcinoma.** Br J Cancer 1994;70: 1014–7.

How extensive?

- As needed be
  - Bowel resection
  - Peritoneal stripping
  - Splenectomy +/- distal pancreatectomy
  - Diaphragmatic stripping
  - Liver resection
  - Cholescystectomy

Upper abdominal surgery

- ↑ blood loss
- ↑ operating time
- No ↑ in hospital stay or post-op mobidity

Colon resection

Colon resection

- To achieve optimal debulking
- Improves survival

Hoffman , Zervose Gynecol Oncol Volume 111, Issue 2, Supplement 2008 S56 - S65

Diaphragmatic

- Will be required in a substantial %

Fanfani et al. Gynecol Oncol 116 (2010) 497 -501

Other

- Splenectomy
- Small bowel resection
- Peritoneal stripping
- Liver resection

Recurrent ovarian cancer

- Recur mostly in abdomen
- Benefit of surgery unclear
  - Lack of good quality data

Secondary cytoreductive surgery

- Criteria
  - PFS at least 12 months
  - Potential for optimal cytoreduction
  - Response to 1st line therapy
  - Good performance status
  - Local recurrence

Secondary cytoreductive surgery

- Beneficial:
  - No ascites
  - Platinum sensitivity
  - Initial FIGO stage <IV
  - Complete tumor resection

Sehouli et al J Surg Oncol 2010;102:656-662

Secondary cytoreductive surgery

- Survival effect of optimal debulking
  - <1cm: 16 to 61 months
  - >1cm: 8 to 27 months

Tebes SJ et al. Gynecol Oncol. 2007;106(3):482.

Benedetti et al. Ann Surg Oncol. 2007;14(3):1136.

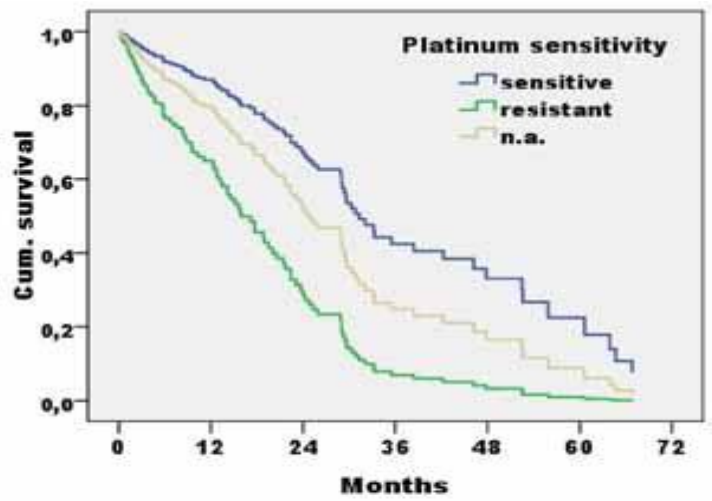
Santillan et al. Gynecol Oncol. 2007;104(3):686.

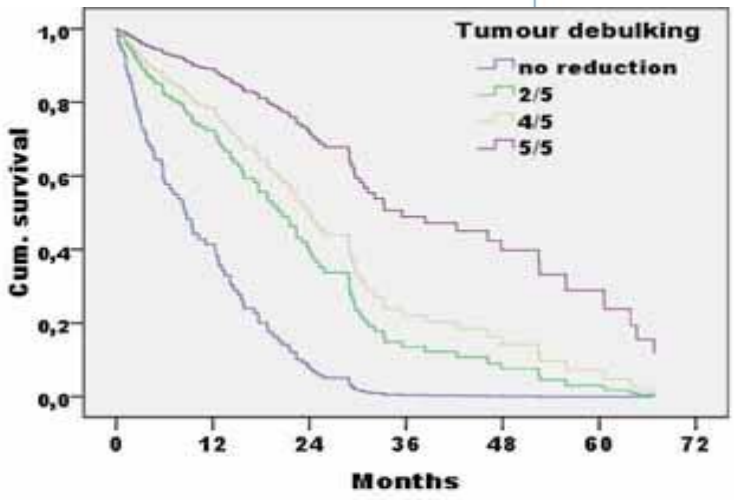
Tian et al. J Surg Oncol. 2010;101(3):244.

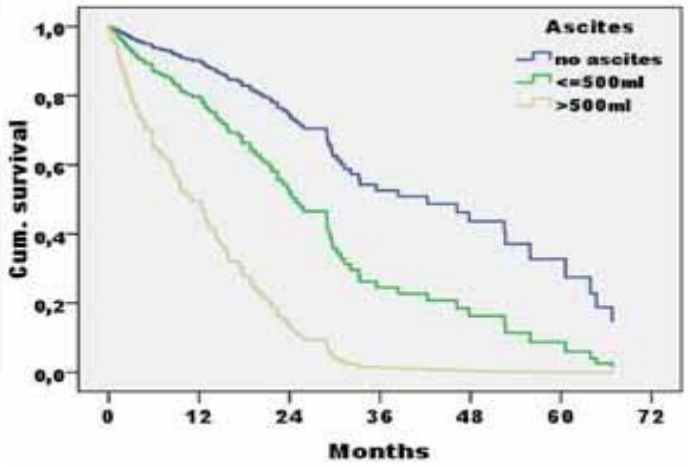
Secondary cytoreductive surgery

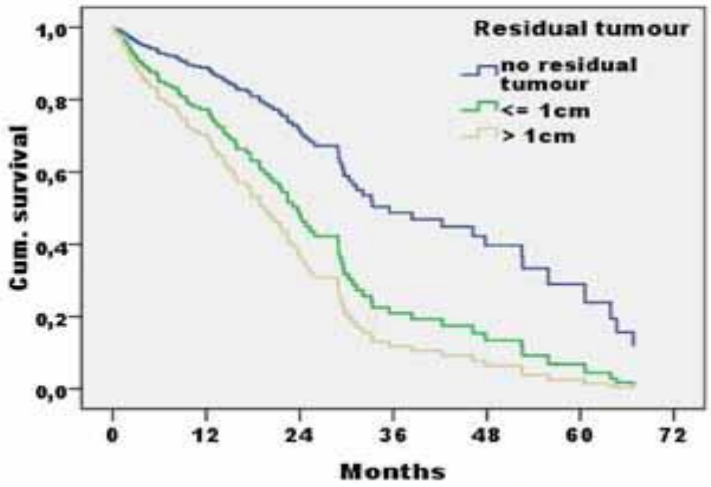
- Complete resection
  - Most important factor for improved survival
- TTR time interval
  - The longer the better

Role of secondary cytoreductive surgery in ovarian cancer relapse: Who will benefit? A systematic analysis of 240 consecutive patients









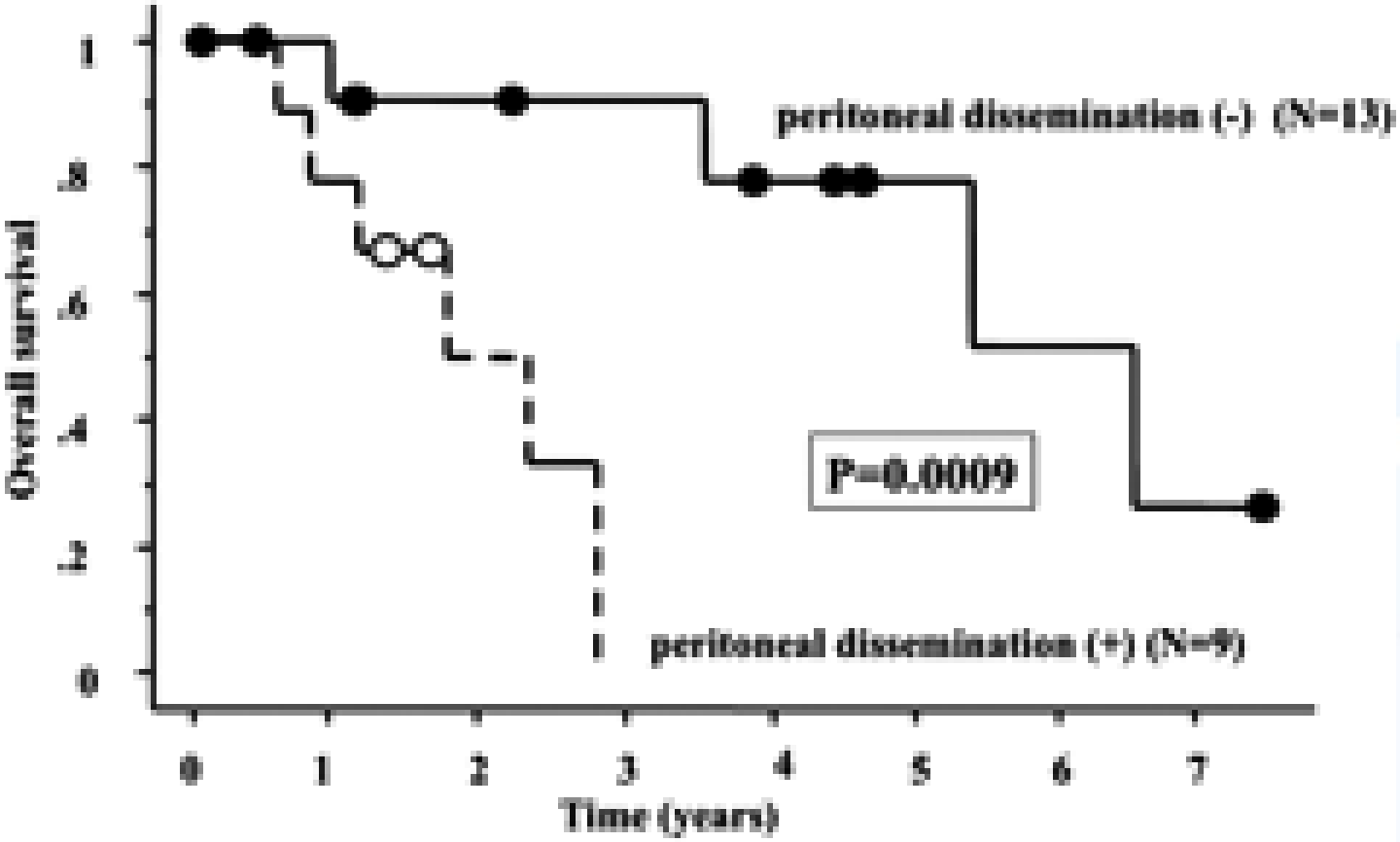
Sehouli et al J Surg Oncol 2010;102:656-662

Metastatic disease of ovary

- From colorectal cancer
  - Complete cytoreduction beneficial
  - Metastases limited to pelvis

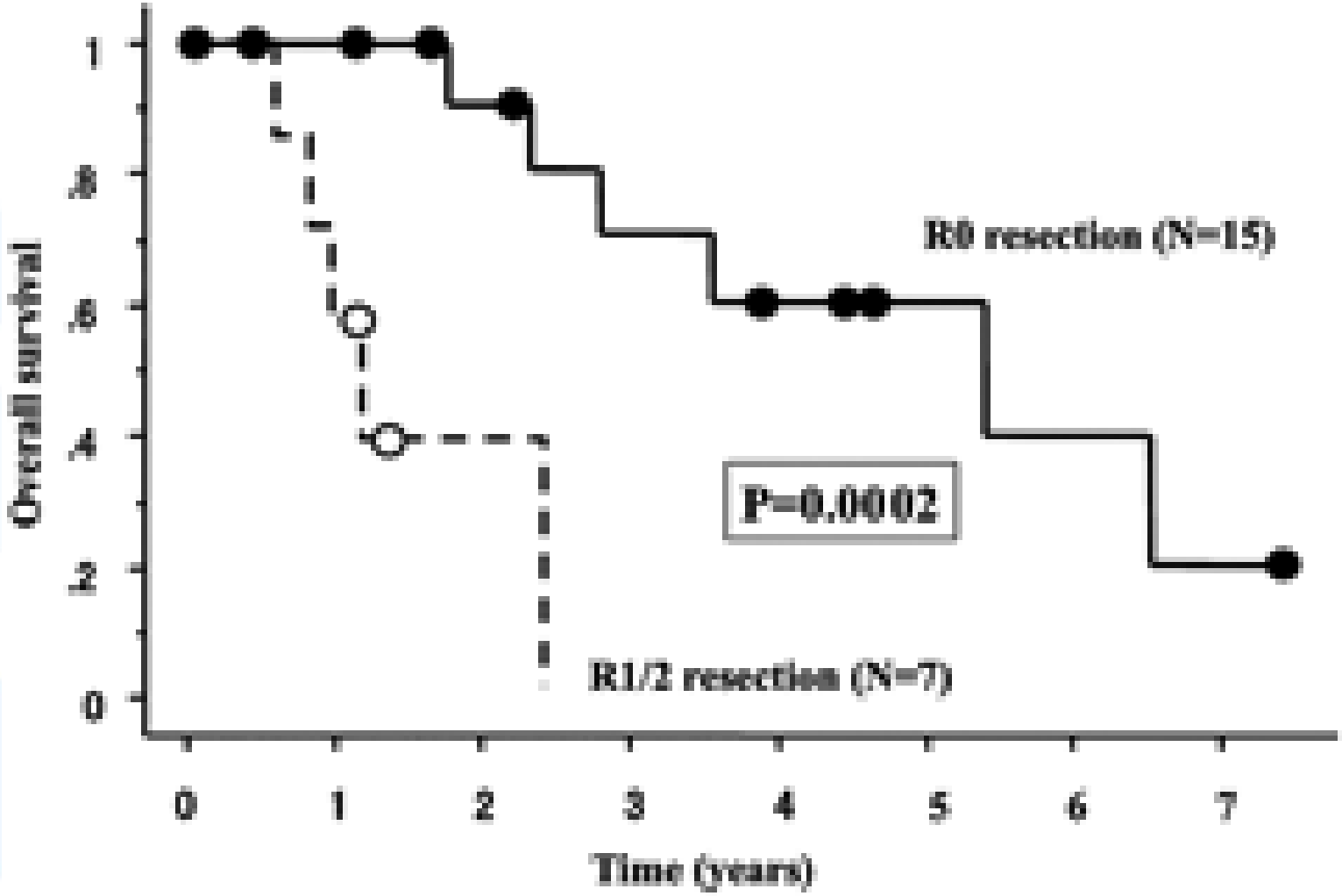
Chung et al. J Surg Oncol 2009;100: 570-574

Overall survival of ovarian metastases from primary colorectal cancers: with or without peritoneal dissemination



Fujiwara et al. J Surg Oncol 102;6: 582-587

Overall survival of ovarian metastases from primary colorectal cancers: R0 resection versus R1/2 resection.



Fujiwara et al. J Surg Oncol 102;6:582-587

Palliative surgery

- Evidence is not good
- Patients should be individually assessed

Palliative surgery

- Bowel obstruction
- Absence of:
  - > 3 l ascites
  - Multifocal obstruction
  - Palpable bulky tumors
  - Pre-op weight loss > 9 kg

Ramirez et al. Cancer Control January 2011 Vol 18 No 1

Conclusion

- What is the role of the gynaecologist

Role of gynaecologist

- Primarily responsible for:
  - Appropriate care
  - Multi-disciplinary approach
  - Ensure maximum effort optimal cytoreduction

Role of gynaecologist

- Primarily responsible for:
  - Identification of women who will benefit from secondary cytoreduction after relapse
  - Appropriate palliative surgery where indicated

Thank you