

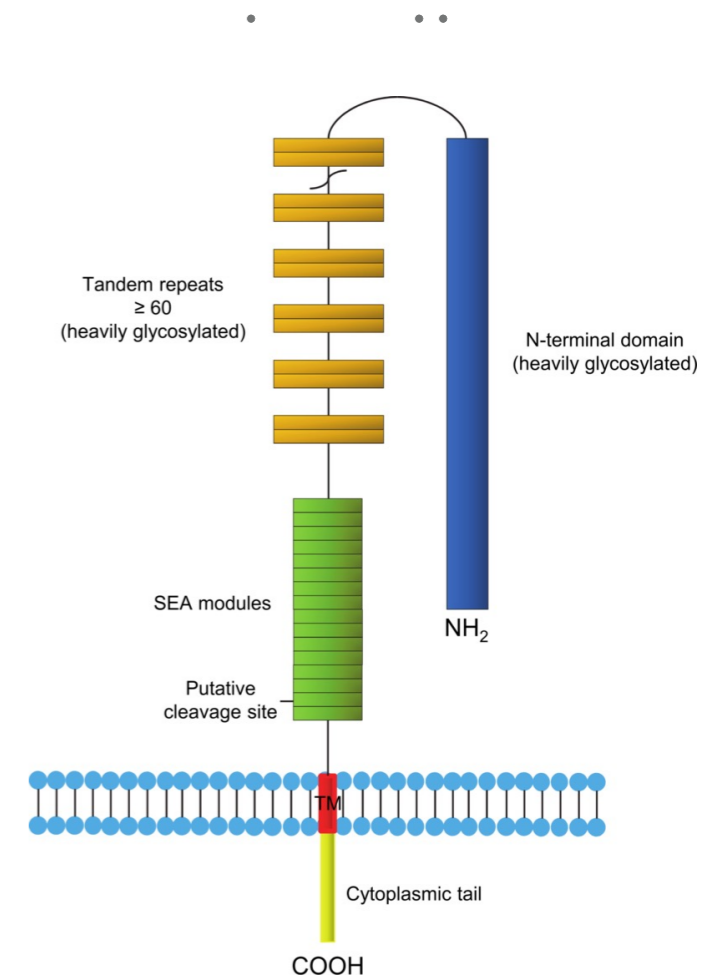
POVEZAVA MED PREDOPERATIVNIMI VREDNOSTMI TUMORSKIH MARKERJEV IN USPEŠNOSTJO KIRURŠKE RESEKCIJE PRI RAKU JAJČNIKOV

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CA-125 – ZGRADBA

- Glikoprotein
- Kodira gen MUC16
- Sestavni del epitelijskega reproducivnega trakta
- Sinteza v celicah mezotela kot posledica mehanskega draženja ali kot posledica vnetnega odgovora (mediatorji TNF α in interleukini)



CA-125 – KLINIČNA UPORABNOST

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- Ocena odziva bolezni na sistemsko zdravljenje
- Sledenje po zaključenem zdravljenju

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- Presejalno orodje; občutljivosti (61 – 90%), specifičnosti (35 – 91%).

CA-125 IN RAK

- ▶ Rak jajčnika in jajcevoda
- ▶ Rak materničnega telesa
- ▶ Rak pljuč
- ▶ Rak dojke
- ▶ Rak GIT

CA-125 PRI BENIGNIH OBOLENJIH

- ▶ Endometrioza
- ▶ Menstruacija
- ▶ PID (vnetja v medenici)
- ▶ Nosečnost
- ▶ Miomi maternice
- ▶ Bolezni jeter

RAZISKAVA OI LJUBLJANA

- ▶ Retrospektivna raziskava
- ▶ 253 bolnic (Rak jajčnika, FIGO IIIC/IV)
- ▶ Skupine:
 - ▶ 1. NACT (215 žensk)
 - ▶ 2. PDS (38 žensk)
- ▶ Korelacija serumskih vrednosti CA-125 in kirurško resekcijo ter obdobje brez ponovitve bolezni (PFS) in celokupnega preživetja (OS)

REZULTATI RAZISKAVE

- ▶ Mediana vrednost CA-125 višja v NACT kot v PDS skupini (972 IU/ml vs. 499 IU/ml)
- ▶ PFS: NACT – PDS (8 mesecev – 18 mesecev)
- ▶ OS: NACT – PDS (25 mesecev – 46 mesecev)
- ▶ Potrdili povezavo med vrednostjo CA-125 in obsegom kirurške resekcije

TABLE 2. Median and range CA-125 levels in different surgical outcomes in primary debulking surgery (PDS) and = neoadjuvant chemotherapy (NACT) group

Surgical outcomes	PDS (N = 38)	NACT (N = 215)	P value
CA-125 at diagnosis IU/ml			
Complete gross resection	359 59–5739	943 10–12803	0.006
Optimal resection	512 85–1117	1006 48–24824	
Suboptimal resection	1522 200–3569	1063 28–31481	
CA-125 post NACT IU/ml			
Complete gross resection		25 5–2074	↓ 97,3%
Optimal resection		36 15–2180	↓ 96,4% 0.020
Suboptimal resection		68 9–2657	↓ 93,6%

TABLE 3. Statistical cut off values of serum CA-125 level and probability to obtain complete gross or optimal cytoreduction

CA-125 level (IU/ml)	Sensitivity (%)	Number and percentage of patients	
50	96.5	9	3.5 %
100	86.5	33	13.0 %
250	74.0	66	26.1 %
500	58.0	98	38.7 %
750	50.0	128	50.6 %
1000	42.0	150	59.3 %

ZAKLJUČKI RAZISKAVE

- ▶ Višja vrednost CA-125 → ↓ verjetnost optimalne citoredukcije
- ▶ CA-125 < 500IU/ml → velika verjetnost optimalne citoredukcije
- ▶ ↓ CA-125 po NACT za ≥96,4% → visoka verjetnost optimalne citoredukcije

CA-125 PRI RAKU JAJČNIKA – LITER.

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ORIGINAL RESEARCH ARTICLE



CA-125 reduction during neoadjuvant chemotherapy is associated with success of cytoreductive surgery and outcome of patients with advanced high-grade ovarian cancer

Roy Kessous¹ | Michel D. Wissing² | Sabrina Piedimonte¹ | Jeremie Abitbol¹ | Liron Kogan¹ | Ido Laskov¹ | Amber Yasmeen¹ | Shannon Salvador¹ | Susie Lau¹ | Walter H. Gotlieb¹

Conclusions: Reduction of CA-125 levels during neoadjuvant chemotherapy provides an early predictive tool that strongly correlates with successful cytoreductive surgery and long-term clinical outcome in women with advanced high-grade serous and endometrioid ovarian cancer.

[South Asian J Cancer](#). 2020 Jan-Mar; 9(1): 30–33.

doi: [10.4103/sajc.sajc_53_17](https://doi.org/10.4103/sajc.sajc_53_17)

PMCID: [PMC6956573](#)

PMID: [31956617](#)

Does preoperative CA-125 cutoff value and percent reduction in CA-125 levels correlate with surgical and survival outcome after neoadjuvant chemotherapy in patients with advanced-stage ovarian cancer? – Our experience from a tertiary cancer institute

[Monisha Gupta](#), [Shilpa Mukesh Patel](#), [Ruchi Arora](#), [Rajneesh Tiwari](#), [Pariseema Dave](#), [Ava Desai](#), and [Meeta Mankad](#)

Conclusion:

Our data showed that >95% fall in CA-125 and an absolute preoperative CA-125 value of <100 U/ml is associated with better surgical and survival outcome in women with advanced EOC. These data are important in patient counseling and treatment planning.

› [South Asian J Cancer. Jan-Mar 2020;9\(1\):30-33. doi: 10.4103/sajc.sajc_53_17.](#)

Does preoperative CA-125 cutoff value and percent reduction in CA-125 levels correlate with surgical and survival outcome after neoadjuvant chemotherapy in patients with advanced-stage ovarian cancer? – Our experience from a tertiary cancer institute

Monisha Gupta ¹, Shilpa Mukesh Patel ¹, Ruchi Arora ¹, Rajneesh Tiwari ¹, Pariseema Dave ¹,
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Int J Gynecol Cancer. 2015 Jun;25(5):823-9. doi: 10.1097/IGC.0000000000000434.

The Impact of Percent Reduction in CA-125 Levels on Prediction of the Extent of Interval Cytoreduction and Outcome in Patients With Advanced-Stage Cancer of Müllerian Origin Treated With Neoadjuvant Chemotherapy

Haider Mahdi ¹, Kathryn A Maurer, Benjamin Nutter, Peter G Rose

Conclusions: A reduction in CA-125 of at least 90% is associated with complete IDS, favorable pathologic response, and fewer bowel resections. A preoperative CA-125 < 20 suggests improved outcome. These findings are helpful for treatment planning and patient counseling.

Multicenter Study > Gynecol Oncol. 2014 Dec;135(3):542-6. doi: 10.1016/j.ygyno.2014.09.005.

Epub 2014 Sep 16.

CA125 kinetic parameters predict optimal cytoreduction in patients with advanced epithelial ovarian cancer treated with neoadjuvant chemotherapy

Aurélie Pelissier¹, Claire Bonneau², Elisabeth Chéreau³, Thibault de La Motte Rouge⁴,
Virginie Fourchette⁵, Emile Daraï⁶, Roman Rouzier⁷

Conclusion: Our data indicate that for advanced ovarian cancer, a CA125 level less than 75 UI/ml after the 3rd NAC was an independent predictor factor for complete IDS.

Meta-Analysis > J Surg Oncol. 2010 Jan 1;101(1):13-7. doi: 10.1002/jso.21398.

Preoperative serum CA-125 levels and risk of suboptimal cytoreduction in ovarian cancer: a meta-analysis

Sokbom Kang ¹, Tae-Joong Kim, Byung-Ho Nam, Sang-Soo Seo, Byoung-Gie Kim, Duk-Soo Bae, Sang-Yoon Park

Results: A total of 2,192 patients were included in the analysis. The pooled optimal cytoreduction rate and the mean of median CA-125 levels were 53.7% and 580 U/ml, respectively. At the cut-off of 500 U/ml, overall sensitivity and specificity were 68.9% (95% confidence interval [CI] 62.0-75.1%) and 63.2% (95% CI 53.7-71.7%), respectively. Positive and negative likelihood ratios were 1.87 (95% CI 1.40-2.50) and 0.49 (95% CI 0.37-0.66). The CA-125 >500 U/ml showed strong association with a risk of suboptimal cytoreduction with an odds ratio of 3.69 (95% CI 2.02-6.73).

Conclusions: The current analysis indicates that CA-125 is a strong risk factor of suboptimal cytoreduction and it may be applied in preoperative counseling and treatment planning. However, it also shows that CA-125 lacks the ability to predict optimal cytoreduction accurately.



Can the preoperative Ca-125 level predict optimal cytoreduction in patients with advanced ovarian carcinoma? A single institution cohort study

George Vorgias  , Christos Iavazzo, Panagiotis Savvopoulos, Eva Myriokefalitaki, Michael Katsoulis, Nickolas Kalinoglou, Thrassivoulos Akrivos

Results

Preoperative Ca-125 proved to be a reliable predictor for optimal cytoreduction. The area under curve of the ROC curve was 0.89, 95% C.I. = [0.828–0.952], indicating very good discriminating capability. The level of 500 IU/ml was found to have the most predictive power. The sensitivity of Ca-125 at that level was 78.5%, the specificity 89.6%, the positive predictive value 84.2%, the negative predictive value 85.4% and its accuracy 85%. Furthermore, the likelihood ratio for correct discrimination between optimal and sub-optimal cytoreduction, dropped sharply from 6.33, 95% C.I. [5.19–10.91] at the level of 500 IU/ml to 0.58, 95% C.I. [0.21–1.63] at the level of 600 IU/ml.

Conclusions

Our data indicate that preoperative Ca-125 is a good predictor for optimal cytoreduction. The best threshold for this prediction proved to be 500 IU/ml. These patients may be candidates for neo-adjuvant chemotherapy treatment. Nevertheless, all clinical and radiological findings must be co-evaluated.