

**Abstract 718 Figure 1** Kaplan Meir Survival curve. Log rank test  $p=0.051$

**Methodology** The SOCQER2 study investigated quality of life after surgery of varying complexity for AOC in a prospective multicenter cohort study, recruiting for 12 months with 24 months follow-up. Results of QoL and variation in Surgical Complexity Scores (SCS) have been previously reported.<sup>2</sup> SOCQER2 centers diverged in approach to URS; used routinely in some participating centers and not in others. Here we analyzed data from nationally collected datasets (Cancer Outcome and Services Data, Systemic Anti-Cancer Treatment, Hospital Episode Statistics) to investigate survival and treatment outcomes in the total cohort of patients from the cancer centers that participated in the SOCQER 2 study, including patients with FIGO Stage 3,4, and stage unknown AOC patients. Residual disease post-surgery was not available for analysis.

**Result(s)\*** 1521 patients across 11 participating centers clustered into 3 groups – centers performing >70% low SCS (5/11), mainly intermediate SCS >40% (3/11) and mainly high SCS surgery > 35% (3/11) with 788, 365 and 368 patients. The proportion of patients receiving standard of care, surgery and chemotherapy, was similar in both low and high SCS groups and highest in the intermediate group (39.2 vs 38.3 vs 51.8,  $p<0.000$ ) (table 1). Median survival was 24.0 vs 22.4 vs 18.8 months in the high, intermediate and low SCS centers, log rank test  $p=0.051$ , (figure 1).

**Conclusion\*** This multicenter ‘real-life’ population based study finds that URS does not reduce the proportion of AOC patients treated surgically. Centers with mainly intermediate SCS have higher proportion receiving surgery and chemotherapy; this may reflect a willingness to accept greater optimal rather than complete cytoreduction rates. Centers with greater radicality trend towards improved survival, but this did not reach statistical significance. A larger population level study to identify ideal intermediate: high SCS ratios is urgently needed.

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### YOLK SAC OVARIAN TUMOR, IS ALWAYS FERTILITY PRESERVATION POSSIBLE?, REPORT OF THREE CASES AND REVIEW OF LITERATURE

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**Introduction/Background\*** Yolk sac ovarian tumors are rare, 2]. Surgery is required for diagnosis, staging, and treatment. Yolk

sac tumor was universally life-threatening before the development of combination chemotherapy. With the introduction of novel chemotherapeutic regimens, especially adding cisplatin to combination therapies, prognosis of the patients reached excellent values, even for patients with advanced stages .

### Methodology

**Result(s)\*** Case 1: A 12 years old girl presented in march 2018 with complain of abdominal pain. The ultrasonography (US) showed a huge pelvic solid tumor . AFP level was high (1200 mg/ml). Right salpingoophorectomy and pelvic lymphadenectomy were done. Histopathology revealed Yolk sac tumor limited to the ovary. Rising of AFP happened four months after the surgery and normalization of the marker. Imaging showed no gross disease .She received 3 courses of (Bleomycin, Etoposide and Cisplatin) and has been in remission . Menses restarted after six months of the last course of chemotherapy.

Case 2: A 25 years old woman G2Ab1L1 presented in May 2016 with severe abdominal pain and distension .The abdominal ultrasonography showed a huge heterogeneous solid cystic lesion and free fluid. AFP level was 1000 mg/ml. Laparotomy was done. Ruptured fragmented right ovarian tumor , hemoperitoneum and tumor involving omentum and appendix were found. Right salpingoophorectomy ,omentectomy,appendectomy and tumor debulking was done. Histopathology revealed Yolk sac tumor She received four cycles of BEP . AFP level decreased to normal after the fourth cycle. She has been in remission, normally menstruating in the past five years.

Case 3: A 21 years old girl presented in September 2020 with complain of abdominal pain. The ultrasonography (US) showed a large solid pelvic tumor originating from right adnexa . AFP level was high (8700mg/ml Rt salpingoophorectomy , pelvic and paraaortic lymphadenectomy were done. Tumor was ruptured intraoperatively.

Histopathology report revealed Yolk sac tumor limited to ovary. She received 3 courses of BEP regimen .Her menses resumed five months after the last chemotherapy course and has been in remission .

**Conclusion\*** These cases remind us , in adolescence and young age with solid high AFP levels and rapidly growing ovarian mass, diagnosis of the Yolk sac tumor has to be kept in mind. Long term remission and preservation of fertility seem to be possible when definite surgery and \chemotherapy with BEP regimen is used.

723

### NEW ALGORITHM TO ASSESS THE RISK OF MALIGNANCY IN PREMENOPAUSAL PATIENTS WITH PELVIC MASS

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**Introduction/Background\*** Human epididimis protein 4 (HE4) has been reported as a promizing biomarker in the assessment of the risk of malignancy in patients, diagnosed with pelvic mass. However, reference limits of HE4 do not provide clinically relevant discrimination between malignant and benign

**Abstract 723 Table 1** Comparison of the performance of ROCK-I and ROMA

	Sensitivity (95% CI),%	Specificity (95% CI),%	PPV (95% CI),%	NPV (95% CI),%	Accuracy (95% CI),%	LR+	ROC-AUC (95% CI),%
ROCK-I	89.6 (75.3 – 96.0)	93.7* (90 – 96.1)	66.7* (52.4 – 78.5)	98.5 (96 – 99.4)	93.2* (89.7 – 95.6)	14.3	0.97 (0.948 – 0.992)
ROMA	83.9 (68.5 – 92.6)	85.7* (80.8 – 89.5)	45.2* (33.7 – 57.2)	97.4 (94.4 – 98.8)	85.5* (80.9 – 89.1)	5.9	0.94 (0.899 – 0.981)

ROCK-I – proposed Risk of Ovarian Cancer Kazan Index. ROMA – Risk of Ovarian Malignancy Algorithm.  
PPV – positive predictive value. NPV – negative predictive value. LR+ - positive likelihood ratio  
\*p<0.05

ovarian diseases. The superiority of well-known Risk of Ovarian Malignancy Algorithm (ROMA), based on both HE4 and Carbohydrate Antigene 125 (CA125), over CA125 alone and its clinical significance are still debated.

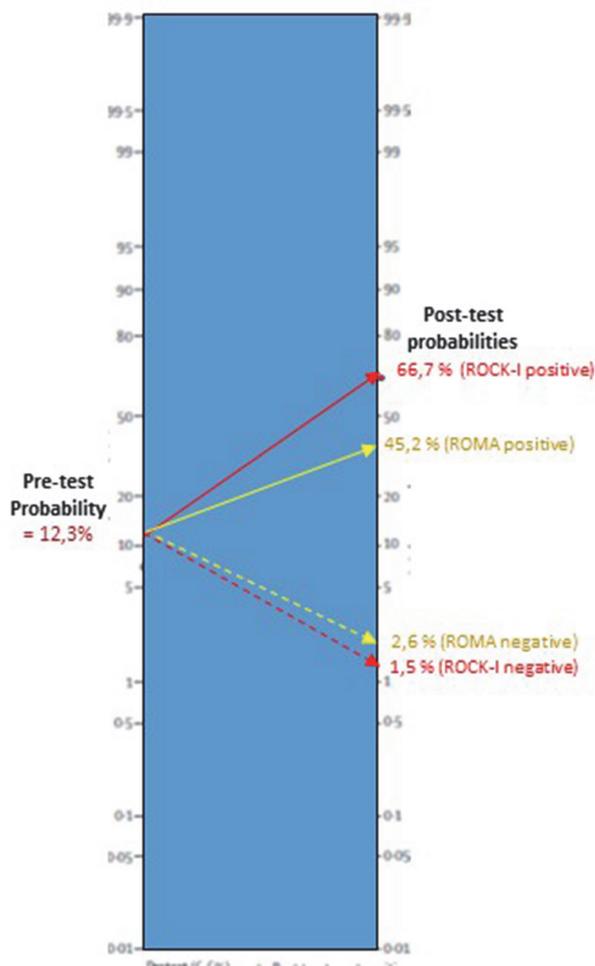
The aim of this study was to elaborate a new algorithm, based on serum CA125, HE4 and age, to assess the risk of malignancy in premenopausal patients with pelvic mass.

**Methodology** The training dataset included 284 premenopausal patients operated because of presence of pelvic mass, out of which 35 and 249 had malignant and benign disease respectively. A new algorithm based on serum HE4, CA125 and age as variables has been developed by using the scenario of

discrimination “benign disease *versus* epithelial ovarian cancer (all stages) together with borderline ovarian tumors FIGO stage 1c2-3c”. This new algorithm, named Risk of Ovarian Cancer Kazan Index (ROCK-I), was further compared with ROMA and CA125 alone. A recruitment of a validating dataset is presently being concluded.

**Result(s)\*** The original ROCK-I has demonstrated greater diagnostic performance than ROMA (table 1, figure 1). When the above-mentioned scenario of discrimination was used the specificities (95% confidence interval (CI)) of ROCK-I and ROMA were 93,7% (90 – 96,1%) and 85,7% (80.8 – 89.5%) respectively, while the sensitivities (95%CI) were 89.6% (75.3 – 96.0) and 83.95 (68.5 – 92.6) respectively and accuracies (95%CI) were 93.2% (89.7 – 95.6) and 85.5% (80.9 – 89.1). The superiority of ROCK-I in specificity, accuracy and positive predictive value was statistically significant (p<0.05), while the tendency towards the superiority in sensitivity and negative predictive value does not reach the statistical significance. Areas under receiver-operating-characteristic curves (95%CI) of ROCK-I and ROMA were 0.97 (0.948 – 0.992) and 0.94 (0.899 – 0.981) respectively.

**Conclusion\*** The proposed ROCK-I has demonstrated greater diagnostic performance than ROMA in the analyzed dataset. If an external validation can show similar or even slightly lower difference between ROCK-I and ROMA it may provide a new basis of routine-use of HE4 in patients with pelvic mass.



**Abstract 723 Figure 1** Pre-test and post-test probabilities of Epithelial ovarian cancer (all stage) together with borderline ovarian tumours stage 1c2-11c

#### 724 DISEASE PROGRESSION IN PATIENTS WITH OVARIAN CANCER WHO RECEIVED FIRST-LINE MAINTENANCE THERAPY OR ACTIVE SURVEILLANCE, A US REAL-WORLD ANALYSIS

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**Introduction/Background\*** Although most patients with ovarian cancer (OC) respond to first-line (1L) treatment, ≈70% experience recurrence within 3 years. Limited evidence exists on the interaction of prognostic factors and the risk of progressive disease (PD). This study assessed whether the number of risk factors (RFs) impacted time to PD in patients treated with maintenance therapy (MT) or active surveillance (AS) after completing 1L therapy.

**Methodology** This retrospective cohort study included patients diagnosed with OC between January 1, 2011, and February