Some thoughts about surgery in ovarian cancer 2021

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This lecture discusses critical aspects of surgery in ovarian cancer.

(1) Access to optimal state-of-the-art quality of care: Not all patients have access to high-quality centers. The European Society of Gynaecological Oncology (ESGO) and other societies have expended energy on improving both training and optimizing center structures and visibility. Certification process, centralization, and participation in clinical trials are crucial factors in these quality initiatives. 1

(2) Selecting the right strategy for the right patient: In general, the optimal (surgical) treatment strategy in advanced ovarian cancer patients should be based on the determination of operability and resectability. Operability relates to whether a patient is fit enough to tolerate radical surgery. Studies in this area identified prognostic factors such as advanced disease and/or high tumor dissemination, poor performance status, hypoalbuminemia, older age, and comorbidity as being associated with significantly higher postoperative morbidity and mortality. 2–4 However, none of these factors alone can determine strategy. Several attempts have been undertaken to build a predictive score for frailty; however, so far none have been confirmed independently and could be generalized. Further research is necessary to identify the subgroup of patients who will not benefit from a radical approach due to either tumor biology or fragility/vulnerability and severe postoperative morbidity; these patients might be candidates for alternative treatment strategies such as neoadjuvant therapy. A strict selection of balancing risks and harms of extensive debulking surgery based on objective parameters and clinical experience is still to be developed. 5

(3) Resectability: The huge impact of residual disease status on patients’ prognosis has been demonstrated in several analyses (primary and interval debulking surgery) and the concept of extensive debulking surgery is considered a key part in the management of advanced ovarian cancer. 6–8 Several attempts have been undertaken to accurately predict resectability and complete resection using techniques such as computed tomography (CT) and positron emission tomography (PET)-CT imaging, diffusion-weighted whole-body magnetic resonance imaging (MRI), video-assisted thoracic surgery (VATS), or laparoscopic evaluation in order to better predict the probability of complete resection. 9, 10 However, imaging alone is not sufficient to predict surgical outcome. The interaction of intrinsic (patient’s frailty) and extrinsic factors...
(surgical skills and equipment of center) aspects may add to the concept of resectability.

4. Timing of surgery: There is still debate on the optimal timing of debulking surgery—before chemotherapy or after neoadjuvant chemotherapy. The EORTC and CHORUS trials have shown non-inferiority for neoadjuvant chemotherapy in mainly non-optimally operable patients with postoperative residuals in more than 80% of patients. The question as to whether neoadjuvant chemotherapy is also acceptable in patients with potentially resectable disease remains open and will hopefully be answered by the prospective randomized TRUST-trial. Today, the gold standard remains upfront debulking surgery if complete resection seems achievable and the patient’s preoperative workup demonstrated fitness and resilience for radical surgery.

5. Future trends: Optimizing structure of centers, centralization, and training/skills evaluation of new techniques offers a promising opportunity. Among them, the definition of the role of laparoscopy is a matter for research, as is the role of hyperthermic intraperitoneal chemotherapy (HIPEC). Another major factor is the approach to optimizing patients’ resilience and perioperative outcome with implementation of enhanced recovery after surgery (ERAS) programs. Finally, the management of complications should be a training focus as it is in the annual European Society of Gynaecological Oncology (ESGO)-supported ‘Master-of-Disaster’ workshop and symposium in Essen.

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REFERENCES