Conclusion* Maintenance PARPi in real-world setting is effective and has a safe toxicity profile.

478 OVERALL SURVIVAL ASSOCIATED WITH BRCA OR ATM MUTATION STATUS IN PATIENTS WITH OVARIAN CANCER: FINDINGS FROM THE PRIOR-2 STUDY

Introduction/Background* Many clinical guidelines recommend patients with ovarian cancer (OC) undergo mutational testing of genes involved in DNA damage repair response as a predictive marker of clinical benefit from platinum-based chemotherapy and targeted therapies. However, there is little known on the prognostic impact of BRCA or ATM mutation on the survival experience of OC patients receiving contemporary routine care in the United States.

475 PARP INHIBITORS MAINTENANCE THERAPY IN PLATINUM-SENSITIVE RELAPSED OVARIAN CANCER: A COMPREHENSIVE CANCER CENTRE’S EXPERIENCE

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469 SURVEY ON THE USAGE OF PARP-INHIBITOR THERAPY IN GERMANY – A NATIONAL NOGGO/JAGO-AGO INTERGROUP STUDY

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Introduction/Background* Poly(ADP-ribose) polymerase inhibitors (PARPi) have been approved for several tumor entities including epithelial ovarian cancer (EOC). The purpose of the study is to analyze the current implementation of BRCA testing and PARPi therapy for EOC in Germany.

Methodology The questionnaire contained 40 questions covering real life data of genetic testing and the use of PARPi. It was divided into three main parts: 1. basic demographics of the respondents, 2. indication, counseling and selection of genetic testing, 3. approach of PARPi treatment. The questionnaire was distributed via mail from 14th August 2020 until 3rd May 2021. Statistics were descriptive. We present a sub-analysis focussing on results concerning the approach of PARPi therapy.

Result(s)* 316 physicians participated in the survey. 54.9 % were specialized in the field of gynecologic oncology and worked in a certified breast center (65.7 %) and/or a gynecological cancer center (68.2 %). 62.1 % declared to apply PARPi on a regular basis. The majority of the respondents had practical experience with olaparib (97.3 %), followed by niraparib (81.9 %) and rucaparib (33.0 %). Criteria for selection of the appropriate PARPi were the side-effect profile (78.7 %), efficacy (71.3 %), approval status (52.7 %) and the guidelines (51.1 %). Only 11.17 % considered the patients wish as relevant. Nausea/vomiting (53.2 %), thrombocytopenia (53.2 %), fatigue (43.1 %), anemia (38.3 %) and leukopenia (30.3 %) were considered the most relevant side effects in daily clinical practice. For maintenance therapy of a primary, BRCA-mutated EOC, 66.5 % of the respondents would make use of a combined therapy with olaparib and bevacizumab, 23.9 % would prefer olaparib only and 9.6 % would choose niraparib. When deciding which PARPi to choose for maintenance therapy of a BRCA-mutated relapse of EOC, most respondents declared olaparib and bevacizumab as their first choice (43.6 %), followed by olaparib only (33.0 %) and niraparib (22.9 %).

Conclusion* PARPi have established as a standard approach for the maintenance therapy of newly diagnosed and recurrent high grade ovarian cancer. Nevertheless, education programmes should be established to intensify the use of PARP-inhibition in EOC.

467 SURVEY ON THE USAGE OF PARP-INHIBITOR THERAPY IN GERMANY – A NATIONAL NOGGO/JAGO-AGO INTERGROUP STUDY

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Introduction/Background* Olaparib and niraparib are poly ADP-ribose polymerase inhibitors (PARPis) that have shown efficacy as maintenance treatment in platinum-sensitive relapsed ovarian cancer (PSROC). The aim of this study was to assess the effectiveness and safety of maintenance PARPis in patients with PSROC, in a comprehensive cancer centre.

Methodology We retrospectively evaluated patients with PSROC treated with maintenance olaparib (400mg bid, capsules or 300mg bid, tablets) and niraparib (300mg id), who received ≥2 previous lines of platinum-based chemotherapy (ChT) and had a partial or complete response to the last platinum-based regimen. Patients who received olaparib were BRCA 1/2 mutated (germline and/or somatic) and those who received niraparib were BRCA 1/2 wild-type. Study endpoints were progression-free survival (PFS), overall survival (OS) and adverse events (AEs).

Result(s)* Between May 2016 and December 2020, 35 patients received maintenance PARPis (21 received olaparib and 14 received niraparib). Median age was 55 years (43-75), and all had ECOG ≤1. The majority had an ovari primary tumour location (74.3%) with serous histology (85.7%). Most patients (65.7%) received 2 prior platinum regimens; 22 (62.9%) had partial response and 13 (37.1%) had complete response to last platinum-based ChT. Median follow-up was 15.1 months (1.8-60.1), with 26 patients alive (61.9% olaparib and 92.8% niraparib patients alive). Median PFS was 7.0 months (95%CI 4.3-9.7) [median PFS for BRCA 1/2 mutated and BRCA 1/2 wild-type patients was 8.3 (95%CI 6.0-10.6) and 5.9 (95%CI 2.3-9.4) months, respectively]. There were no differences in PFS by number of prior platinum regimens, response to last platinum-based ChT or time-to-progression after penultimate platinum-based ChT (>6-12 vs >12 months). Median OS was not reached. Grade ≥3 AEs (anaemia, thrombocytopenia, neutropenia and nausea) occurred in 11 (31.4%) patients (17.1% with olaparib and 14.3% with niraparib). Treatment was suspended in 24 (68.6%) patients: 20 (57.2%) due to progression (34.3% with olaparib and 22.9% with niraparib) and 3 (8.6%) due to toxicity to niraparib (none due to olaparib). Eighteen (51.4%) patients required dose reduction due to AEs (28.6% with olaparib and 22.8% with niraparib).

Conclusion* Maintenance PARPis in real-world setting is effective and has a safe toxicity profile.