Overall survival and patterns of care for women with rare ovarian cancers: A prospective study from the Australian National Gynae-Oncology Registry (NGOR)

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Background

Ovarian cancer (OC) is a heterogenous group of malignancies, most of which are rare. Data on patterns of care and survival of the most-rare sub-groups of OC (incidence rates < 6 per 100,000) in the real-world setting is limited. This study aims to describe patterns of care and overall survival (OS) for women with rare ovarian cancers in Australia

Aims

Using the National Gynae-Oncology Registry to determine:

1. The incidence of rare ovarian cancer
2. The treatment patterns of these cancers
3. Overall survival of patient with rare ovarian cancers

Methods

Clinical data were sourced from the NGOR and assessed for accuracy and completeness. High grade serous and endometrioid OC subtypes were excluded. Due to incompleteness of survival follow-up data, 3-year OS was only calculated for the state of Victoria.

Conclusion

This is a large, real-world analysis of patterns of care and survival for women with rare sub-types of OC. Combining data with international sites will likely further enhance research on patterns of care and outcomes for women with rare OC.

References

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Results

Data on 2812 women with newly diagnosed OC from 2017-2023 within NGOR were collected and 716 women were subsequently identified with rare subtypes of OC. The 5 sub-types with the highest incidences were clear cell (n = 168, 23.4%), mucinous (n=151, 21.1%), adult granulosa cell (n=111, 15.5%), low grade serous (n=98, 13.7%) and carcinosarcoma (n=59, 8.2%). A further 23 additional rare subtypes included germ cell tumours and sex cord stromal tumours.The median follow-up time was 2.6 years and median age at diagnosis was 55 years. Most women had an ECOG 0-1 performance status (n=551, 77.0%). The primary treatment modality was surgery only (n=360, 50%), followed by surgery and systemic therapy (n = 317, 44.2%), systemic therapy only (n=28, 3.9%) and no treatment (n=11, 1.5%). Most women were discussed at a multi-disciplinary meeting (n=701, 97.9%). The diagnosis was confirmed on histology for all women. The 30-day post-operative adverse events (Clavien-Dindo ≥III severity) was 3.6 % (n=26), with the highest rate of post-operative events in the carcinosarcoma group of 12% (n=6). Using Fisher's exact test across the 5 most common sub-types described above, there were significant differences in treatment modalities ($p<0.001$), rates of 30-day post-operative events ($p=0.002$), age adjusted charlson comorbidity index ($p<0.001$) and metropolitan versus remote regional status ($p=0.007$) between the sub-types. Survival at 3 years for these five sub-types of rare OC within the state of Victoria are summarised in the table. The highest 3-year OS was in adult granulosa and low grade serous sub-types.

Cancer Sub-type	Stage 1-% (n)	Stage 2 - % (n)	Stage 3 - % (n)	Stage 4 -%(n)
Clear cell carcinoma	90.6% (45)	72.6% (15)	60.4% (30)	25% (8)
Mucinous carcinoma	90.5% (63)	60% (5)	41.7% (8)	n/a
Adult granulosa cell tumour	95% (42)	100% (6)	100% (1)	n/a
Low grade serous carcinoma	100% (13)	100% (5)	79% (30)	n/a
Carcinosarcoma	100% (5)	57.1% (7)	37.1 % (21)	n/a

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