

INTRODUCTION

- Low-grade serous carcinoma of ovary (LGSOC) rare histologic subtype which can originate de novo or from serous borderline tumour
- It represents 5% to 10% of serous cancer, and 6% to 8% of all ovarian cancers. ^[1,2]

AIMS AND OBJECTIVES

- To see the pattern of disease distribution in low grade ovarian cancer
- To compare the result of treatment modalities in this histology

MATERIALS AND METHODS

- Retrospective study from the period 2014-2018 in Tata Medical Center, Kolkata
- 11 patients of LGSOC were included and data available in the electronic medical records was analysed.

RESULTS

Table 1.BASELINE CHARACTERISTICS OF 11 LOW GRADE SEROUS CARCINOMA

Age	53 (Median)	29-72 (Range)
Stage	I-II	2
	III-IV	9 □
	NA	1
Site	Ovary	6
	Ovary & Fallopian Tube	5
Laterality	Unilateral	3
	bilateral	8
Ascitic Fluid	Present	9
	Absent	2
Level of CA125	432 (Median)	
CA125	<1000	7
	>1000	4
CC Score	CCO	5
	CC1	2
	NA	2
LYMPH NODE INVOLVEMENT	PRESENT	7
	ABSENT	4
METASTASIS	NO	

Table 2: TREATMENT MODALITIES GIVEN in LGOC

TREATMENT MODALITY	NO OF PATIENTS
CHEMOTHERAPY ONLY	1
SURGERY ONLY	2
CHEMOTHERAPY+SURGERY	7
NO TREATMENT	1

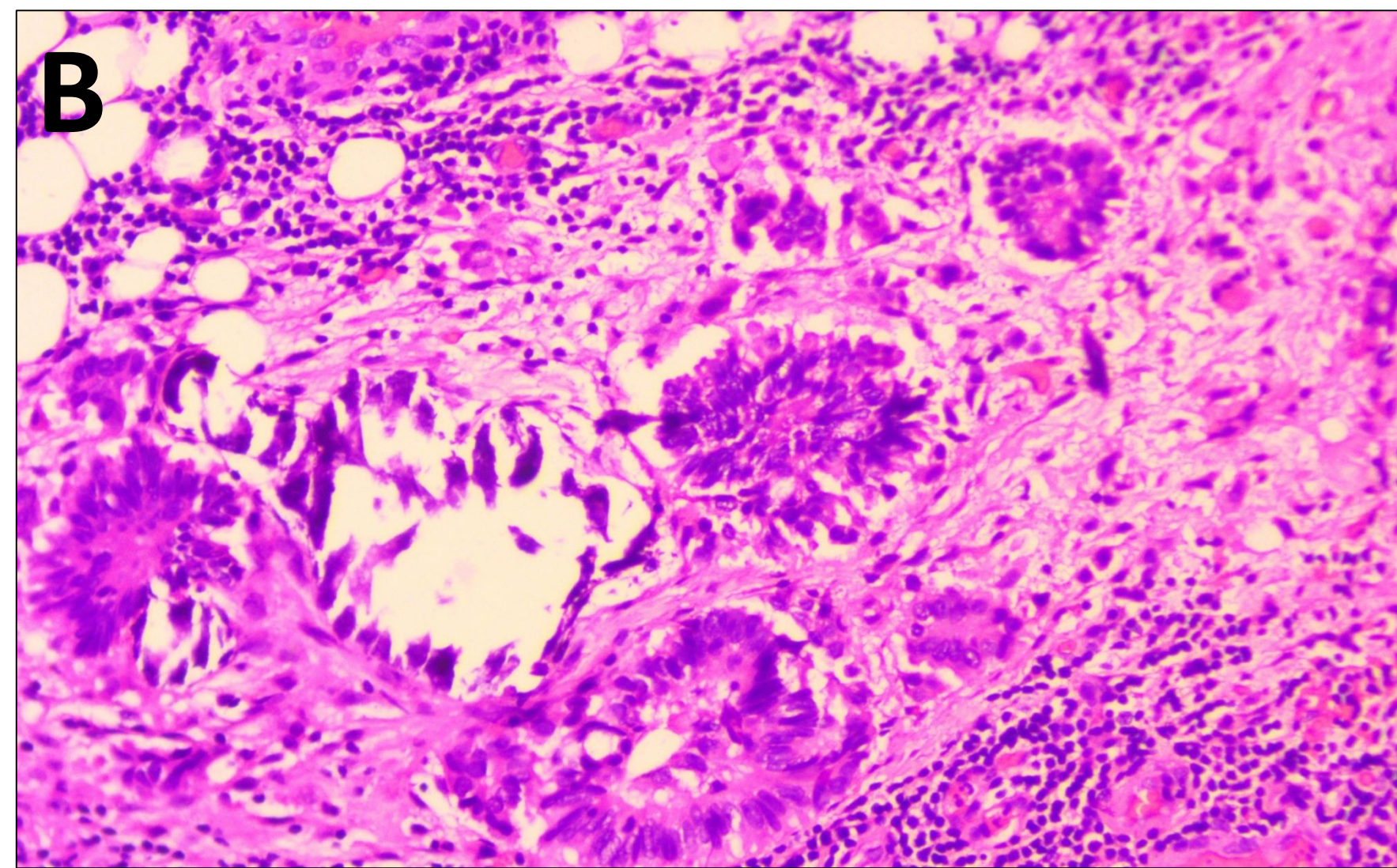
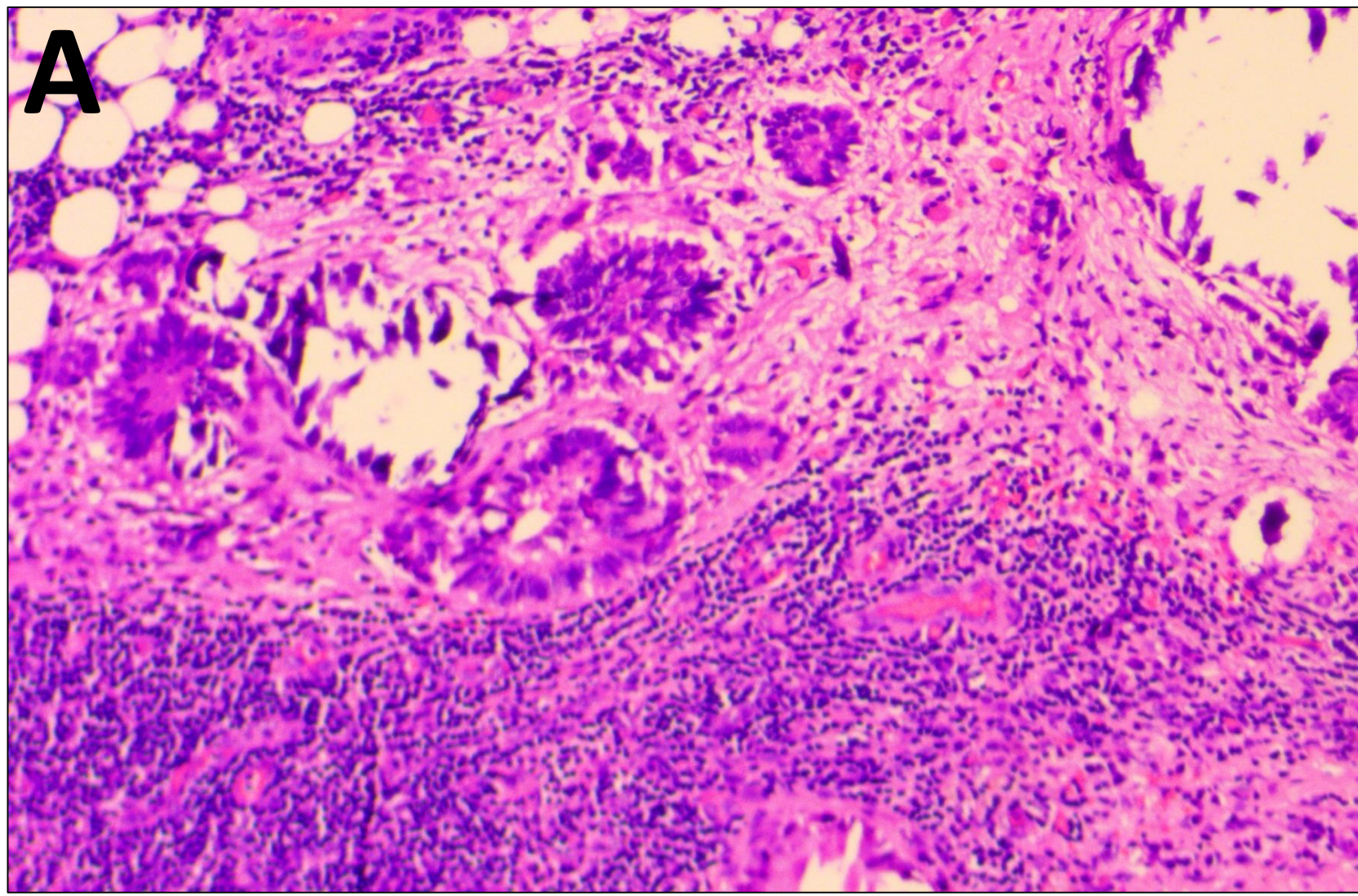


Fig1: H&E sections show low grade serous ovarian tumour A (10x) ,B (20x)

TABLE 3: SURVIVAL RATE IN LOW GRADE SEROUS CARCINOMA

Median PFS	9
OVERALL SURVIVAL	
< 12M	2
>12M	9

DISCUSSIONS

- Low grade serous tumour is histologically diagnosed by mild to moderate nuclear atypia, up to 12 mitoses per 10 high-power fields.
- Histologically, nowadays, we are performing P53 and ER,PR status.
- High CA125 values which is mostly suggestive of High - grade tumours can also be noted in Low - grade histology as seen in our study in 4 patients.
- Recurrence rate is found to be low in these cases, as only 3 cases recurred in our study.
- LGSC being relatively chemo-resistant, surgery provides both first-line therapy and is preferred to treat recurrence.
- ER and PR status is tested these days to decide if hormonal therapy can be offered to these women. One of in our study patients is receiving hormonal treatment. ^[3]

FUTURE DIRECTIONS

- Low grade serous ovarian tumor is a histology that is challenging in diagnosis and treatment in ovarian cancers. Chemoresistence of this histology needs other targeted therapies to be explored for treatment.
- There is a need to understand molecular biology of this subtype through preclinical investigations, combinations of targeted therapies, hormonal therapies in the neoadjuvant or adjuvant setting for treatment of LGSOC.

REFERENCES

1. Plaxe SC. Epidemiology of low-grade serous ovarian cancer. Am J Obstet Gynecol. 2008;198:459.e1-e8; discussion e8-e9.
2. Schmeler KM, Gershenson DM. Low-grade serous ovarian cancer: a unique disease. Curr Oncol Rep. 2008;10:519-23.
- 3.Wong K K, Lu K H, Malpica A. Significantly greater expression of ER, PR, and ECAD in advanced-stage low-grade ovarian serous carcinoma as revealed by immunohistochemical analysis. Int J Gynecol Pathol. 2007;26:404–409.

ACKNOWLEDGEMENT

Department of Gynaecological Oncology and Pathology,
Tata Medical Center, Kolkata