

Combining Lenvatinib and Pembrolizumab for the Management of Endometrial Carcinosarcoma: A Retrospective Case Series

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Basic Characteristics of Study Population

Age at diagnose (years)	66.5 (64.8-68.8)
BMI	29.5 (23.3 – 33.4)
Race	
White	5 (62.5)
Black	1 (12.5)
Asian	1 (12.5)
Other	1 (12.5)
Comorbidities	
Hypertension	3 (37.5)
Hyperlipidemia	1 (12.5)
Diabetes	2 (25.0)
Gastroesophageal reflux disease	2 (25.0)
Breast cancer history	2 (25.0)
Heart failure	1 (12.5)
Venous thromboembolism	1 (12.5)
Stage at Diagnosis	
I	3 (37.5)
II	1 (12.5)
III	3 (37.5)
VI	1 (12.5)
Stage When Starting Immunotherapy	
III	3 (37.5)
VI	5 (62.5)
MMR Proficient	8 (100)
PL-D1 Status	
Positive	2 (25.0)
Negative	6 (75.0)
Prior Cancer Treatment	
Surgery + Chemotherapy	5 (62.5)
Surgery + Chemotherapy + Radiotherapy	3 (37.5)
Prior Lines of treatment	
1	5 (62.5)
2	1 (12.5)
3	1 (12.5)
4	1 (12.5)

Background

Endometrial carcinosarcomas constitute a rare and aggressive subtype of uterine malignancy.

In recent years, **immunotherapy** has emerged as a treatment option **after the failure of platinum-based chemotherapy**.

This case series explores the use of pembrolizumab and lenvatinib in treating endometrial carcinosarcoma.

Result

Variables	
Cycles of Immunotherapy	
1	1 (12.5)
3	2 (25.0)
5	1 (12.5)
7	1 (12.5)
8	1 (12.5)
12	1 (12.5)
15	1 (12.5)
Lenvatinib Starting Dose	
10 mg	3 (37.5)
20 mg	5 (62.5)
Steroid During Immunotherapy	1 (12.5)
Follow Up Time	4.2 (1.8, 6.4)
Progression-Free Survival	3.55 (1.8, 4.4)
Overall Survival	7.4 (3.7, 10.7)
Reason for Stopping Immunotherapy	
Progression	7 (87.5)
Declination	1 (12.5)
Current Status	
Alive with Disease	2 (25.0)
Deceased	5 (62.5)
Loss of Follow-up	1 (12.5)
Currently on immunotherapy	0

Method

A retrospective case series was conducted and included patients seen between 2019 and 2023 who had confirmed uterine carcinosarcoma treated with pembrolizumab and lenvatinib.

Statistical analysis included survival analysis for **progression-free survival (PFS)** and **overall survival (OS)**.

Discussion and Conclusion

All our patients received standard care, involving **surgery and chemotherapy with carboplatin and paclitaxel**.

Pembrolizumab combined with lenvatinib is the recommended therapy for **non-MSI-H/dMMR advanced endometrial carcinoma**.

Previous studies have indicated the median PFS of subsequent therapy is 1.8 months, whereas, in our study, the PFS of lenvatinib plus pembrolizumab as the later line of therapy was **extended to 3.6 months**.

In a prior case series involving patients with advanced or recurrent uterine carcinosarcoma treated with lenvatinib plus pembrolizumab, the median PFS and OS were reported as 2.6 months and 2.8 months, respectively. In our study, we demonstrated a better outcome with **PFS and OS of 3.6 and 6.3**.

Our study indicated that this regimen might serve as a potential **second-line treatment** for endometrial carcinosarcomas.

The limitation of this case series lies in the small number of patients studied. Further investigations with **larger cohorts** are essential to more comprehensively explore the potential benefits of pembrolizumab and lenvatinib in treating endometrial carcinosarcoma, specifically as a second line treatment.