



Efficacy and safety of lenavatinib plus pembrolizumab versus chemotherapy in advanced endometrial cancer: a systematic review and meta-analysis with reconstructed individual patient data

Sadiq .M Altbali, Mohamedelmustafa Yahya Mohamed Eldouma, Hamzah M. Alghzawi, Hassan. H. Eladl, Ahmed Hany Harfoush, Ali Soukia, Jana M. AbdelGawad, Menna M. Sarhan, Abdallah Altarras, Talha Farooq#, Mostafa A. Khalifa



6
Studies



2,810
Patients



Reconstructed IPD
2,571 (OS)
1,908 (PFS)



Improved OS and PFS
↓ Neutropenia
↑ Diarrhea



Background & objectives



Background

- Advanced and recurrent endometrial cancer remains a major therapeutic challenge.
- Lenvatinib + pembrolizumab has shown clinical activity, but comparative evidence and safety profile require further evaluation



Objectives

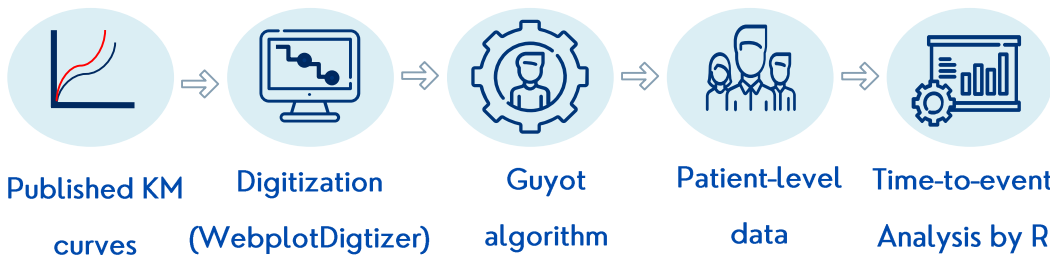
- Compare efficacy and safety vs chemotherapy.
- Primary objective was OS and PFS



Why This Study?

This study Evaluated a Comprehensive evidence from RCTs & real world cohorts with

Reconstructed individual patient data IPD



Methods



Databases:
PubMed, Scopus
Web of Science

Study design

- systematic review and meta-analysis was conducted according to the PRISMA 2020
- PICO :**
 - P → adult patients with advanced, recurrent or metastatic endometrial cancer.
 - I → lenvatinib plus pembrolizumab
 - C → chemotherapy
 - O → primary OS, PFS. Secondary adverse events

PRISMA flow chart



Results

Survival Outcome

Overall Survival

HR 0.79

95% CI 0.71 – 0.88

P < 0.001

Progression-Free survival (PFS)

HR 0.67

95% CI 0.60 – 0.75

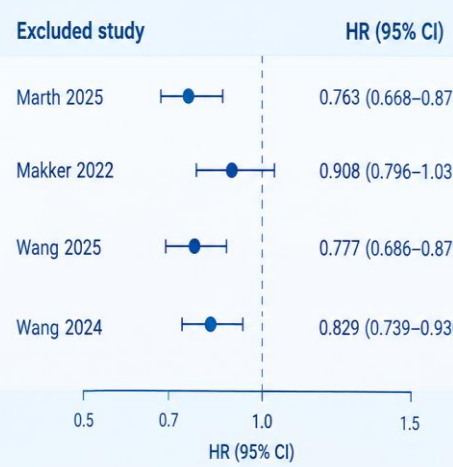
P < 0.001



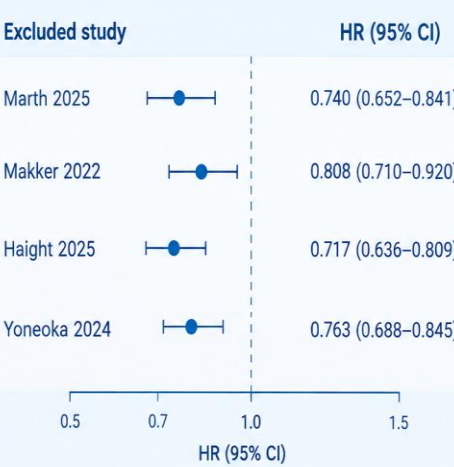
ROBUSTNESS OF SURVIVAL ESTIMATES

Leave-one-out sensitivity analysis

A Overall Survival (OS)



B Progression-Free Survival (PFS)

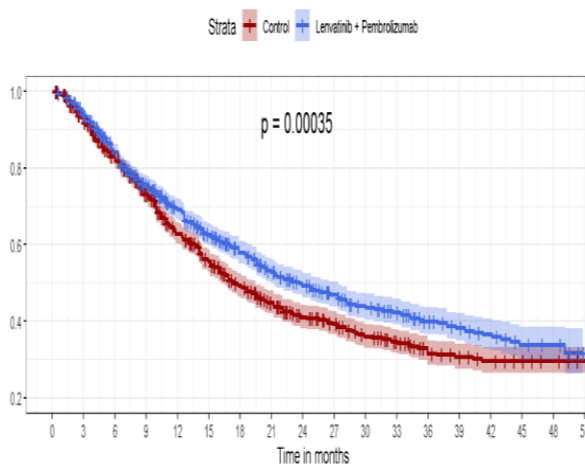


OS statistical significance was lost after exclusion of Makker 2022 (HR 0.908, 95% CI 0.796–1.035; p=0.148).

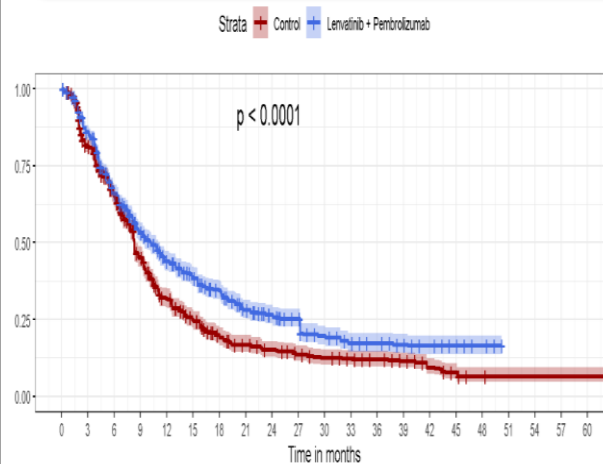


Reconstructed KM Curves

Overall survival (Reconstructed IPD)



Progression-Free Survival



Safety profile



Neutropenia

RR 0.29

95% CI 0.10-0.83

lower risk



Diarrhea

RR 2.13

95% CI 1.33-3.41

Higher risk



Key Finding



Improved OS and PFS with L+P vs chemotherapy



Lower Neutropenia Risk



Higher risk of diarrhea



Survival benefit with distinct toxicity profile



Acknowledgments

We thank our Al-Naby Muhammad the teacher of humanity, and for our families, mentor, collaborators for their endless support. With heartfelt gratitude



Corresponding:

• Talha Farooq
• Email: farooqtalha41@gmail.com
• Affiliation: Jinnah post graduate medical centre, Karachi, pakistan



Please Scan for more information

