

Abstract

Background:

The treatment options for advanced and recurrent endometrial cancer (EC) have been limited for many decades. Study 309-KEYNOTE 775 has demonstrated the strong efficacy of the combination therapy of Lenvatinib and Pembrolizumab (LEAP). However, the comparison was made with single-agent chemotherapies, therefore, the hypothesis of "LEAP is superior to combination chemotherapy" still stays controversial. The practice of LEAP is complicated due to its unique possible adverse effects. Furthermore, cost-effectiveness studies were done in foreign countries, it is arguable whether they are cost-effective when applied to Japan's healthcare system, due to the different definitions of the willingness-to-pay threshold. Thus, the importance of chemotherapy once again raises attention.

Methods:

We retrospectively reviewed 90 cases of advanced and recurrent EC, initially treated by chemotherapy, from 2008 and 2021 at a single institution. The Kaplan-Meier analysis was performed for progression-free survival (PFS) and overall survival (OS). Literature regarding the transition of therapeutic situations, clinical trials, adverse effects, and cost-effectiveness studies, was searched from the PubMed database.

Results:

The median follow-up period for all cases was 45 months (range: 1 to 244). Median OS and PFS were 21(95%CI, 14 to 41) and 13months (95%CI, 9 to 19), respectively. Subgroup analysis was done by treatment-free interval (<6 months, 6 to 12 months, 12 months <), and according to whether chemotherapy was a first-line or more than the second-line. We found five pieces of literature on cost-effectiveness studies on LEAP, and we summarized them narratively.

Conclusion:

From the Kaplan-Meier analysis, it is shown from this study that advanced and recurrent EC could still benefit from the rechallenge of chemotherapy. LEAP brought a new option, and several trials are searching for its efficacy as a first-line therapy. However, in the aspect of utilities, simplicity, adverse effects, and cost-effectiveness, it is extremely important to identify cases in which conventional chemotherapy is still likely to benefit.

Keywords:

Advanced endometrial cancer, recurrent endometrial cancer, Chemotherapy, Lenvatinib, Pembrolizumab, Molecular-targeted drug, Immunotherapy, Cost-effectiveness