Introduction/Background Concurrent chemoradiotherapy (CCRT) has limited therapeutic efficacy for stage III-IV cervical cancer. We aimed to identify a subgroup of patients with stage III-IV cervical cancer who benefit from CCRT with additional treatment.

Methodology We retrospectively reviewed 120 patients with stage III-IV cervical cancer who were treated with CCRT from 2002 to 2018. We compared overall survival between patients treated with CCRT alone and those who received CCRT with additional conventional treatments (systemic chemotherapy before and/or after CCRT and/or extended-field radiation). Prognostic factors were statistically analyzed.

Result(s) Overall, 44 (36.7%) and 21 (17.5%) patients were radiologically diagnosed with pelvic and para-aortic lymph node enlargement, respectively. The median tumor diameter was 5.7 cm. Sixty-nine (57.5%) patients received no additional treatment, and 51 (42.5%) received additional treatment. Cox regression analysis identified the following prognostic factors: histological non-squamous cell carcinoma (hazard ratio [HR], 3.9; 95% confidence interval [CI], 1.8–8.2), tumor diameter of ≥6 cm (HR, 2.1; 95% CI, 1.2–3.7), radiological pelvic lymph node enlargement (HR, 2.1; 95% CI, 1.1–4.0), and radiological para-aortic lymph node enlargement (HR, 2.1; 95% CI, 1.1–4.1). Even in the lowest risk group (no risk factors), the 5-year overall survival rate was lower in the additional treatment group than in the CCRT alone group (78.7% vs. 80.9%, respectively; log-rank test, P = 0.79).

Conclusion Addition of conventional treatments to CCRT might not improve survival in patients with advanced cervical cancer. Novel treatment strategies including immune checkpoint inhibitors should be considered for such patients.

Abstract Figure 1