

A CASE REPORT

COMBINED SYSTEMIC FLOT CHEMOTHERAPY AND INTRAPERITONEAL PACLITAXEL FOR STAGE IV GASTRIC ADENOCARCINOMA WITH PERITONEAL METASTASIS

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BACKGROUND

Stage IV gastric adenocarcinoma with peritoneal metastasis is associated with poor prognosis and limited therapeutic options. Intraperitoneal (IP) chemotherapy, when combined with systemic therapy, has emerged as a potential strategy to enhance drug delivery to peritoneal lesions and improve disease control.

METHODS

We report the case of a 27-year-old gentleman diagnosed with stage IV (cT3N2M1) poorly differentiated gastric adenocarcinoma presenting with perigastric lymphadenopathy, high-volume peritoneal metastases, and low-volume ascites. Molecular profiling demonstrated HER2-negative disease with intact mismatch repair (MMR) proteins and negative PD-L1 expression (TPS <1%, CPS <1). The patient underwent left peritoneal port insertion on 31 July 2025, followed by eight cycles of systemic FLOT chemotherapy combined with intraperitoneal paclitaxel from 4 August 2025 to 18 November 2025. Subsequently, he was initiated on maintenance therapy with intraperitoneal paclitaxel and oral S-1 (50 mg twice daily). Treatment response was assessed using serial PET-CT imaging and ascitic cytology.

RESULTS

Post-treatment PET-CT performed on 23 September 2025 demonstrated resolution of the previously observed diffuse FDG uptake in the gastric body and cardia. A transient nonspecific FDG uptake along the lesser curvature, likely representing gastritis, was noted but subsequently resolved on imaging dated 11 November 2025. Residual findings included only mild FDG-avid subcentimeter lymph nodes at the coeliac axis and splenic hilum, considered reactive. Initial ascitic cytology was positive showing atypical cells suspicious of malignancy and latterly negative results.

CONCLUSION

This case highlights the potential therapeutic benefit of combining systemic chemotherapy with intraperitoneal paclitaxel for advanced gastric adenocarcinoma with peritoneal metastasis. The favorable radiologic response and improvement in peritoneal disease burden suggest that this multimodal approach may provide effective disease control in selected patients with peritoneal dissemination. Further studies are warranted to evaluate the efficacy and long-term outcomes of this strategy.

