PIPAC for Peritoneal Cancer: The Epworth Experience

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Introduction

Peritoneal carcinomatosis (PC) has a relentlessly aggressive clinical course. Pressurized Intraperitoneal Aerosol Chemotherapy (PIPAC) entails accessing the abdominal cavity using standard laparoscopic techniques and delivering aerosolized chemotherapeutic agents via a high-pressure micro-injection pump. This novel therapeutic approach can repeatedly deliver a localized therapy with enhanced tolerability and minimal morbidity to improve local disease control.

Aims

To investigate the feasibility and safety of PIPAC in an Australian hospital setting

Methodology

Data was prospectively collected on patients undergoing PIPAC in a private Australian hospital. Patients had disease not suitable for cytoreduction and HIPEC and had demonstrated progression on systemic therapy. PIPAC procedures were planned six weekly and continued until evidence of disease progression, or further PIPAC was not possible. Study outcomes included survival from 1st PIPAC to death / last follow-up, post-operative complications and length of stay (LOS).

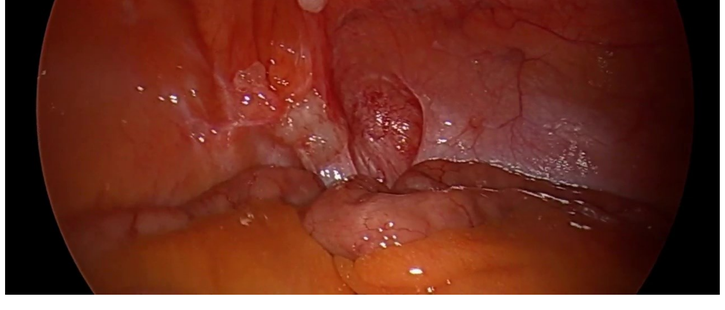
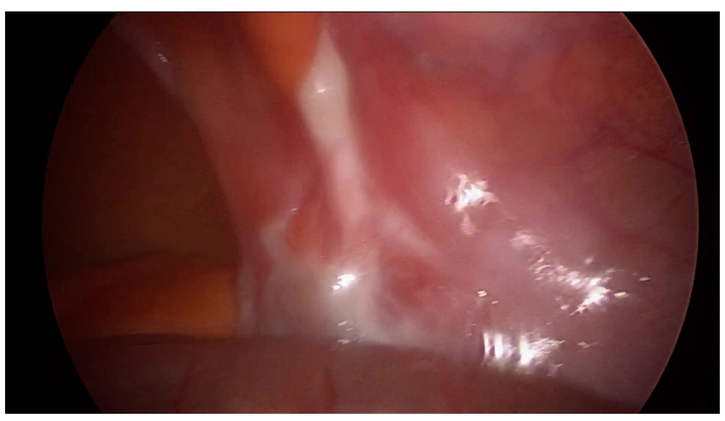


Fig 2: Peritoneal colorectal cancer metastatic deposits at laparoscopy Pre-PIPAC

Fig 3: The same laparoscopic view post PIPAC#3



Results

Ten patients underwent 36 procedures (range, 1-6). Colorectal cancer (6) was the most common primary malignancy, others being gastric (2), appendiceal (1) cancer, and mesothelioma (1). All patients had demonstrated disease progression on multiple lines of systemic chemotherapy before having PIPAC. Median LOS was 1 day (range 1-3 days). No major complications occurred. Seven patients discontinued PIPAC due to extra-abdominal disease progression. Median overall survival post 1st PIPAC was 14 months (range 3-30) with improved survival for patients undergoing more PIPAC treatments.

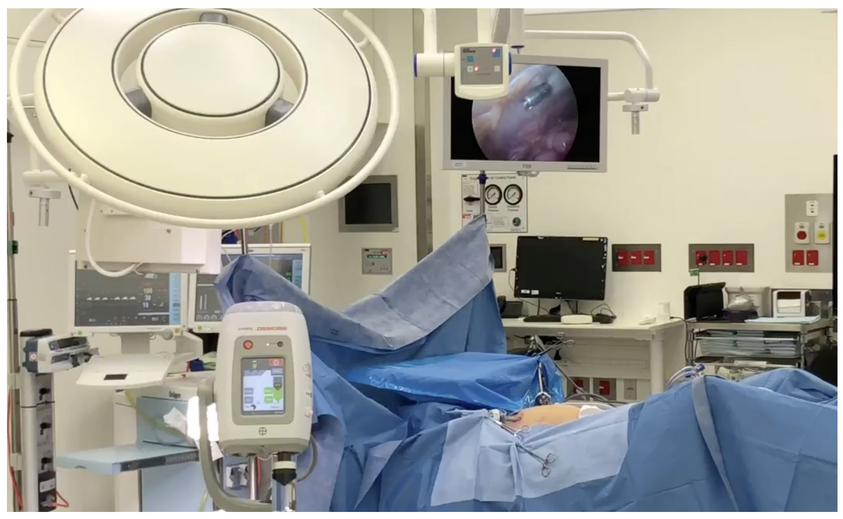
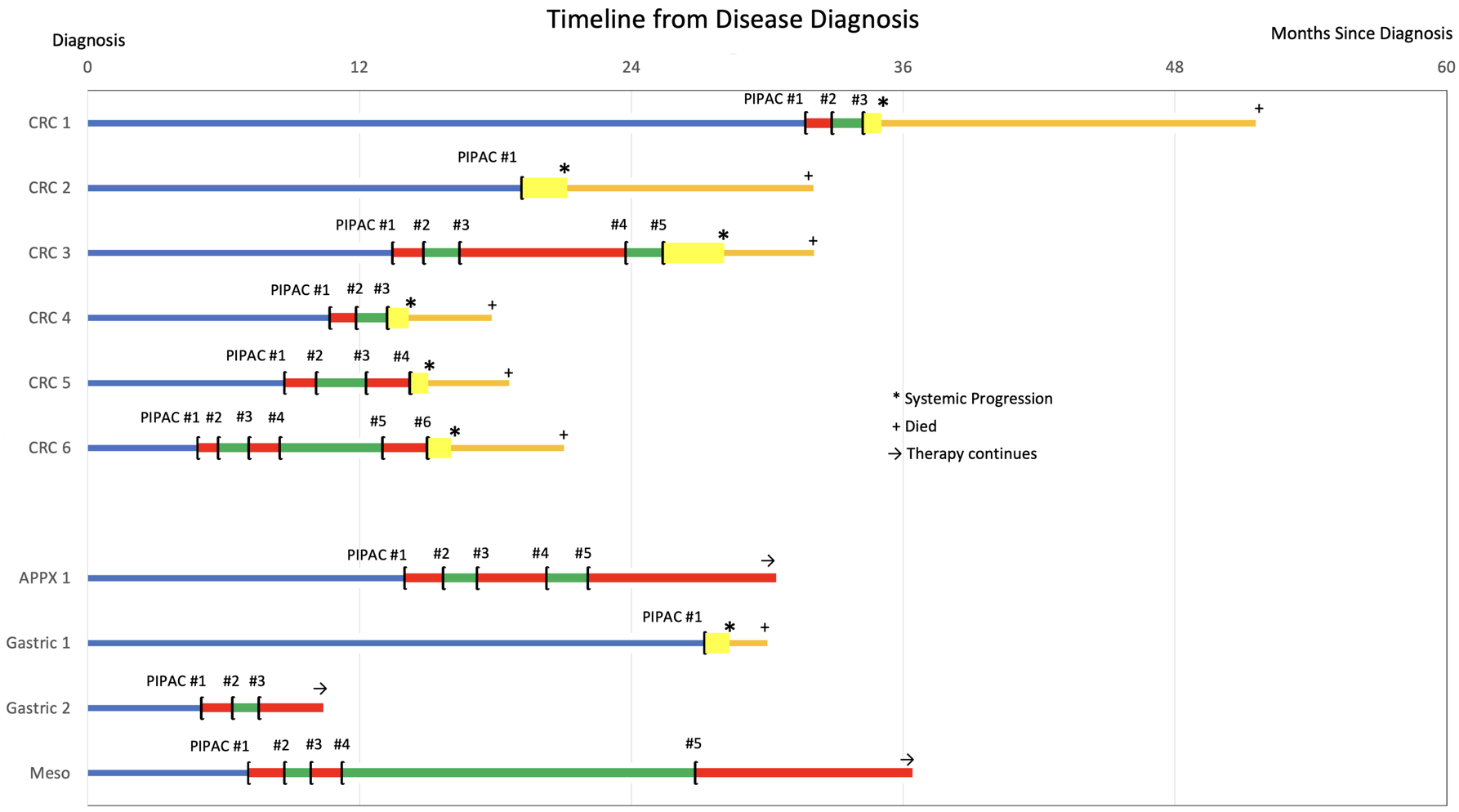


Fig 1: PIPAC operating room set-up

Conclusions

Early results suggest PIPAC is feasible, safe, and well tolerated. Patients having repeated PIPAC procedures had increased survival. Limitations include the small sample size and heterogeneity of the patient group.



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