

Appendix A—Search

Pubmed search

((PIPAC) or (Pressurized Intraperitoneal Aerosol Chemotherapy) OR (Pressurised Intraperitoneal Aerosol Chemotherapy))

Appendix B—Details of excluded clinical studies

Study on PIPAC-cisplatin-doxorubicin for non-CPM

- Blanco A, Giger-Pabst U, Solass W, Zieren J, Reymond MA. Renal and hepatic toxicities after pressurized intraperitoneal aerosol chemotherapy (PIPAC). *Ann Surg Oncol* 2013;20:2311-6.
- Solass W, Kerb R, Mürdter T, et al. Intraperitoneal chemotherapy of peritoneal carcinomatosis using pressurized aerosol as an alternative to liquid solution: first evidence for efficacy. *Ann Surg Oncol* 2014;21:553-9.
- Tempfer CB, Celik I, Solass W, et al. Activity of Pressurized Intraperitoneal Aerosol Chemotherapy (PIPAC) with cisplatin and doxorubicin in women with recurrent, platinum-resistant ovarian cancer: preliminary clinical experience. *Gynecol Oncol* 2014;132:307-11.
- Tempfer CB, Winnekendonk G, Solass W, et al. Pressurized intraperitoneal aerosol chemotherapy in women with recurrent ovarian cancer: A phase 2 study. *Gynecol Oncol* 2015;137:223-8.
- Giger-Pabst U, Solass W, Buerkle B, et al. Low-dose pressurized intraperitoneal aerosol chemotherapy (PIPAC) as an alternative therapy for ovarian cancer in an octogenarian patient. *Anticancer Res* 2015;35:2309-14.
- Tempfer CB, Solass W, Buerkle B, et al. Pressurized intraperitoneal aerosol chemotherapy (PIPAC) with cisplatin and doxorubicin in a woman with pseudomyxoma peritonei: A case report. *Gynecol Oncol Rep* 2014;10:32-5.
- Nadiradze G, Giger-Pabst U, Zieren J, et al. Pressurized Intraperitoneal Aerosol Chemotherapy (PIPAC) with Low-Dose Cisplatin and Doxorubicin in Gastric Peritoneal Metastasis. *J Gastrointest Surg* 2016;20:367-73.
- Tempfer CB, Reznicek GA, Ende P, et al. Pressurized Intraperitoneal Aerosol Chemotherapy with Cisplatin and Doxorubicin in Women with Peritoneal Carcinomatosis: A Cohort Study. *Anticancer Res* 2015;35:6723-9.
- Reymond M, Demtroeder C, Solass W, et al. Electrostatic precipitation Pressurized IntraPeritoneal Aerosol Chemotherapy (ePIPAC): first in-human application. *Pleura Peritoneum* 2016;1:109-16.
- Reznicek GA, Jüngst F, Jütte H, et al. Dynamic changes of tumor gene expression during repeated pressurized intraperitoneal aerosol chemotherapy (PIPAC) in women with peritoneal cancer. *BMC Cancer* 2016;16:654.
- Khomyakov V, Ryabov A, Ivanov A, et al. Bidirectional chemotherapy in gastric cancer with peritoneal metastasis combining intravenous XELOX with intraperitoneal chemotherapy with low-dose cisplatin and Doxorubicin administered as a pressurized aerosol: an open-label, Phase-2 study (PIPAC-GA2). *Pleura Peritoneum* 2016;1:159-66.
- Tempfer CB, Hartmann F, Hilal Z, et al. Intraperitoneal cisplatin and doxorubicin as maintenance chemotherapy for unresectable ovarian cancer: a case report. *BMC Cancer* 2017;17:26.
- Graversen M, Detlefsen S, Bjerregaard JK, et al. Peritoneal metastasis from pancreatic cancer treated with pressurized intraperitoneal aerosol chemotherapy (PIPAC). *Clin Exp Metastasis* 2017;34:309-14.
- Sleeman JP. PIPAC puts pressure on peritoneal metastases from pancreatic cancer. *Clin Exp Metastasis* 2017;34:291-3.
- Hilal Z, Reznicek GA, Klenke R, et al. Nutritional status, cachexia, and anorexia in women with peritoneal metastasis and intraperitoneal chemotherapy: a longitudinal analysis. *J Gynecol Oncol* 2017;28:e80.
- Khosrawipour T, Khosrawipour V, Giger-Pabst U. Pressurized Intra Peritoneal Aerosol Chemotherapy in patients suffering from peritoneal carcinomatosis of pancreatic adenocarcinoma. *PLoS One* 2017;12:e0186709.
- Falkenstein TA, Götze TO, Ouaiissi M, et al. First Clinical Data of Pressurized Intraperitoneal Aerosol Chemotherapy (PIPAC) as Salvage Therapy for Peritoneal Metastatic Biliary Tract Cancer. *Anticancer Res* 2018;38:373-8.
- Giger-Pabst U, Demtröder C, Falkenstein TA, et al. Pressurized IntraPeritoneal Aerosol Chemotherapy (PIPAC) for the treatment of malignant mesothelioma. *BMC Cancer* 2018;18:442.
- Somashekhar SP, Rajagopal AK, Zaveri SS, et al. First Indian study on pressurized intraperitoneal aerosol chemotherapy (PIPAC) procedure for advanced peritoneal carcinomatosis secondary to epithelial ovarian cancer. *Indian J Gynecol Oncolog.* 2018;16:25.
- Tempfer CB, Giger-Pabst U, Seebacher V, et al. A

- phase I, single-arm, open-label, dose escalation study of intraperitoneal cisplatin and doxorubicin in patients with recurrent ovarian cancer and peritoneal carcinomatosis. *Gynecol Oncol* 2018;150:23-30.
21. Zakharenko AA, Belyaev MA, Trushiti AA, et al. First results of laparoscopic pressurized intraperitoneal aerosol chemotherapy (PIPAC) in treatment for peritoneal carcinomatosis in patients with gastric cancer. *Voprosy Onkologii* 2018;64:222-7.
 22. Tempfer CB, Hilal Z, Dogan A, et al. Concentrations of cisplatin and doxorubicin in ascites and peritoneal tumor nodules before and after pressurized intraperitoneal aerosol chemotherapy (PIPAC) in patients with peritoneal metastasis. *Eur J Surg Oncol* 2018;44:1112-7.
 23. Nowacki M, Grzanka D, Zegarski W. Pressurized intraperitoneal aerosol chemotherapy after misdiagnosed gastric cancer: Case report and review of the literature. *World J Gastroenterol* 2018;24:2130-6.
 24. Horvath P, Beckert S, Struller F, et al. Pressurized intraperitoneal aerosol chemotherapy (PIPAC) for peritoneal metastases of pancreas and biliary tract cancer. *Clin Exp Metastasis* 2018;35:635-40.
 25. Larbre V, Alyami M, Mercier F, et al. No Renal Toxicity After Repeated Treatment with Pressurized Intraperitoneal Aerosol Chemotherapy (PIPAC) in Patients with Unresectable Peritoneal Metastasis. *Anticancer Res* 2018;38:6869-75.
 26. Gockel I, Jansen-Winkel B, Haase L, et al. Pressurized Intraperitoneal Aerosol Chemotherapy (PIPAC) in Gastric Cancer Patients with Peritoneal Metastasis (PM): Results of a Single-Center Experience and Register Study. *J Gastric Cancer*. 2018;18:379-91.
 27. Struller F, Horvath P, Solass W, et al. Pressurized intraperitoneal aerosol chemotherapy with low-dose cisplatin and doxorubicin (PIPAC C/D) in patients with gastric cancer and peritoneal metastasis: a phase II study. *Ther Adv Med Oncol* 2019;11:1758835919846402.
 28. Nowacki M, Nowacka K, Głowacka I, et al. Overall clinical and trichoscopic analysis performed in patients who underwent pressurized intraperitoneal aerosol chemotherapy (PIPAC) treatment for peritoneal carcinomatosis - initial trial preliminary report. *Postepy Dermatol Alergol* 2019;36:461-7.
 29. Ellebæk SB, Graversen M, Detlefsen S, et al. Pressurized intraperitoneal aerosol chemotherapy (PIPAC) of peritoneal metastasis from gastric cancer: a descriptive cohort study. *Clin Exp Metastasis* 2020;37:325-32.
 30. Nielsen M, Graversen M, Ellebæk SB, et al. Next-generation sequencing and histological response assessment in peritoneal metastasis from pancreatic cancer treated with PIPAC. *J Clin Pathol* 2020. [Epub ahead of print]. doi:10.1136/jclinpath-2020-206607.
 31. Alyami M, Bonnot PE, Mercier F, et al. Pressurized intraperitoneal aerosol chemotherapy (PIPAC) for unresectable peritoneal metastasis from gastric cancer. *Eur J Surg Oncol* 2020. [Epub ahead of print]. doi:10.1016/j.ejso.2020.05.021.
 32. Ndaw S, Hanser O, Kenepekian V, et al. Occupational exposure to platinum drugs during intraperitoneal chemotherapy. Biomonitoring and surface contamination. *Toxicol Lett* 2018;298:171-6.
 33. Ametsbichler P, Böhländt A, Nowak D, et al. Occupational exposure to cisplatin/oxaliplatin during Pressurized Intraperitoneal Aerosol Chemotherapy (PIPAC)? *Eur J Surg Oncol* 2018;44:1793-9.
 34. Delhorme JB, Klipfel A, D'Antonio F, et al. Occupational safety of pressurized intraperitoneal aerosol chemotherapy (PIPAC) in an operating room without laminar airflow. *J Visc Surg* 2019;156:485-8.
 35. Solass W, Giger-Pabst U, Zieren J, et al. Pressurized intraperitoneal aerosol chemotherapy (PIPAC): occupational health and safety aspects. *Ann Surg Oncol* 2013;20:3504-11.
 36. Oyais A, Solass W, Zieren J, et al. Occupational Health Aspects of Pressurised Intraperitoneal Aerosol Chemotherapy (PIPAC): Confirmation of Harmlessness. *Zentralbl Chir* 2016;141:421-4.
- Study on PIPAC-cisplatin-doxorubicin for various indications, including CPM (n=2)***
1. Jansen-Winkel B, Thieme R, Haase L, et al. Perioperative safety of intraperitoneal aerosol chemotherapy : Analysis of our first 111 pressurized intraperitoneal aerosol chemotherapy (PIPAC) procedures. *Chirurg* 2019;90:137-45.
 2. Gockel I, Jansen-Winkel B, Haase L, et al. Pressurized IntraPeritoneal Aerosol Chemotherapy (PIPAC) in patients with peritoneal metastasized colorectal, appendiceal and small bowel cancer. *Tumori* 2020;106:70-8.
- Study on PIPAC-oxaliplatin for non-CPM (n=1)***
1. Graversen M, Detlefsen S, Pfeiffer P, et al. Severe

peritoneal sclerosis after repeated pressurized intraperitoneal aerosol chemotherapy with oxaliplatin (PIPAC OX): report of two cases and literature survey. Clin Exp Metastasis 2018;35:103-8.

Study on procedural characteristics of PIPAC with various drugs for various indications (n=1)

1. Hübner M, Grass F, Teixeira-Farinha H, et al; Pressurized intraperitoneal aerosol chemotherapy – practical aspects. Eur J Surg Oncol 2017;43:1102-9.

Study on PIPAC in solid organ transplant recipients (n=1)

1. Horvath P, Yurttas C, Struller F, et al. Pressurized intraperitoneal aerosol chemotherapy (PIPAC) for peritoneal metastases in solid organ graft recipients: first experience. Ann Transplant 2019;24:30-5.

Study on pharmacokinetics of PIPAC-oxaliplatin for CPM (n=1)

1. Lurvink RJ, Tajzai R, Rovers KP, et al. Systemic Pharmacokinetics of Oxaliplatin After Intraperitoneal Administration by Electrostatic Pressurized Intraperitoneal Aerosol Chemotherapy (ePIPAC) in Patients with Unresectable Colorectal Peritoneal Metastases in the CRC-PIPAC Trial. Ann Surg Oncol 2020. [Epub ahead of print]. doi:10.1245/s10434-020-08743-9.

Study on anesthesiological concerns and management during PIPAC (n=1)

1. Solanki SL, Kumar PP, DeSouza A, Salkani AP. Perioperative concerns and management of pressurised intraperitoneal aerosolised chemotherapy: report of two cases. Indian J Anaesth 2018;62:225-8.