

Abstract:

Background: Port catheter (PC) is a classical route of administering chemotherapy for breast cancer patients. We established a standard operating procedure (SOP) of intraoperative ipsilateral subclavian PC implantation in selected resectable breast cancer patients.

Methods: We conducted a prospective clinical study to assess its safety and complications. A total of seventy six resectable breast cancer patients were included for intraoperative ipsilateral subclavian PC implantation. Thirty patients receiving conventional percutaneous contralateral PC implantation under local anesthesia at the same period were recruited as control group. The time consuming of implantation, and PC-related complications were recorded. Visual analog scale questionnaires were used to assess patients' satisfaction.

Results: Compared with conventional contralateral PC implantation under local anesthesia, SOP for intraoperative ipsilateral subclavian PC implantation significantly shortens the time consuming (11.6 vs. 28.6 min, $p < 0.001$). With a median retention time of 6.3 months, the overall incidence rate of PC-related complications is 21%, of which the most common complications are infections and venous thromboembolism (7.9% for each). Most patients (86.8%) with intraoperative ipsilateral subclavian PC implantation have completed the whole chemotherapy successfully. Due to the general anesthesia and shorter time consuming, intraoperative implantation gains significantly more patients' satisfaction.

Conclusions: In the present study, we develop a SOP for intraoperative ipsilateral subclavian PC implantation in resectable breast cancer patients, which is novel, convenient, and safe. In selected breast cancer patients with indications for adjuvant chemotherapy, this practice could significantly shorten the time consuming of PC implantation and improve the degree of patients' satisfaction.

Reference:

Ye F, Liu Y, Yu P, Li N, Wang Y, Xie X, Tang J. Intraoperative ipsilateral subclavian port catheter implantation in resectable breast cancer patients: A novel, safe, and convenient clinical practice. *Cancer Med.* 2020 Nov 4. doi: 10.1002/cam4.3595. Epub ahead of print. PMID: 33145946.