

Abstract:

Background: Peripherally inserted central catheter (PICC) is widely used in chemotherapy due to its minimal complications and simple wound care. This study explored the effects of tai chi on catheter-related complications, catheter management ability, and quality of life in tumor patients with PICC at the intermission of chemotherapy.

Methods: This study was an open parallel trial. A total of 98 patients with malignant tumors who underwent long-term chemotherapy with PICC were randomly divided into an observation group (49 cases) and a control group (49 cases). The control group received grip strength exercise for 3 months, while the observation group received 24 simplified tai chi exercises. The coagulation function, thrombosis rate, self-management ability, and quality of life were compared between the two groups before and after the intervention.

Results: After the intervention, the activated partial thromboplastin time (APTT) and prothrombin time (PT) in the observation group were longer than those in the control group, while fibrinogen (FIB) was lower than that in the control group (all $P < 0.05$). After the intervention, the total score of self-management ability of the observation group was higher than that of the control group ($t = 2.038$, $P = 0.047$), and the scores of exercises ability and quality of daily life with catheters were significantly increased (all $P < 0.05$). In terms of quality of life, scores of role-physical (RP), social functioning (SF), mental health (MH) and role-emotional (RE) in the observation group were higher than those in the control group (all $P < 0.05$), while there was no statistical difference between the bodily pain (BP) scores of the observation group and the control group ($P > 0.05$). The incidence of venous thrombosis in the observation group was lower than that in the control group, the difference was statistically significant ($\chi^2 = 4.439$, $P = 0.035$).

Conclusions: Tai chi can prevent PICC thrombosis, reduce PICC-related complications, improve selfmanagement ability, and improve quality of life in at-home patients with long-term PICC.

Reference:

Ding Y, Ji L, Hu Y. Effects of tai chi on catheter management and quality of life in tumor patients with PICC at the intermission of chemotherapy: a non-inferiority randomized controlled trial . *Ann Palliat Med.* 2020;apm-20-1456. doi:10.21037/apm-20-1456

[Full Text](#)