To investigate the current status of catheter-related-thrombosis (CRT) and the risk factors of Chinese acute lymphocytic leukemia (ALL) children with peripherally inserted central catheter (PICC)” Wei et al (2017).

Abstract:

Objective: To investigate the current status of catheter-related-thrombosis (CRT) and the risk factors of Chinese acute lymphocytic leukemia (ALL) children with peripherally inserted central catheter (PICC).

Methods: The clinical data of the 116 inpatients preliminarily diagnosed ALL in the Leukemia Ward of Beijing Children’s Hospital with PICC from 1(st) March 2014 to 31(st) December 2014 were collected prospectively.

Results: ①Refer to the B-ultrasound on the 15(th) day after catheterization, the incidence of CRT was 28.4% (33/116 cases), all cases were symptom-free. ②There were no statistical differences in terms of gender, age distribution, degree, immunotype between CRT and CRT-free groups. This study revealed no statistical differences of blood routine test items,
coagulation function items, co-infection and catheterization vein between the two groups. While there was significant statistical difference of catheterization side, the frequency of right catheterization was higher in CRT group [75.8% (25/33) vs 55.4% (46/83), P=0.043]. ③ On the 15(th) day after catheterization, significant statistical difference of D-Dimer between the two groups was revealed [0.18 (0.05-2.45) mg/L vs 0.11 (0.01-5.34) mg/L, P=0.001], while no statistical differences of blood routine test items and other coagulation function items. Multivariate Logistic regression analysis verified catheterization on right was a risk factor of CRT. ④ During the observation, there were 3 cases of catheter-related complications other than CRT, all of which were CRI, 2 of them had CRT meanwhile. ⑤ The B-ultrasound on the 33(rd) day after catheterization showed that 73.1% of the cases had reduced thrombosis, 3.8% had growth thrombosis, 23.1% had no obvious change respectively.

Conclusion: CRT was a common catheter related complication among ALL children during induction chemotherapy, and CRT cases with symptoms were rare. Catheterization on right was a risk factor for CRT, and regular test of D-Dimer and B ultrasound contributed to detect CRT. Most of the CRT cases had reduced thrombosis without specific management.

Reference:


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