

Short Commentary

A Comparative Study of the Modified Lateral Position of Javelin and the Conventional Position of Body in the Operation of Pediatric Ureteropelvic Junction Obstruction with Da Vinci Xi Platform

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Abstract

Background: To explore the comparative study of different positioning methods in robot assisted laparoscopic pyeloplasty.

Study population: From December 2021 to January 2022, researcher selected 60 patients who underwent laparoscopic pyeloureteroplasty assisted by Da Vinci robot Xi system in our hospital. According to the order of surgery, we randomly divided the subjects into three groups: control group A, control group B and observation group C, each with 20 cases. In control group A, we adopted the conventional lateral position, control group B adopted the lumbar bridge cushion lateral position, and observation group C adopted the modified javelin lateral position, The operation time, secondary berth incidence, operation time, intraoperative blood loss and the incidence of intraoperative complications were compared among the three groups.

Statistical approach: All data are collected by Norman H. Nie and C Hadlai (Tex) Hull and Dale H. Bent developed SPSS version 22.0 for analysis. The measurement data were analyzed by independent sample (t) test, and the calculation data were compared by (X²) test. P < 0.05 was statistically significant.

Keywords: Ureteropelvic junction obstruction; Operating room nursing Manipulation; Operative position.

Material and methods

According to the operation sequence, the subjects were randomly divided into three groups: control group A, control group B and observation group C, with 20 cases in each group. The control group A used conventional lateral position, the control group B used lumbar bridge pad elevation lateral position, and

the observation group C used modified javelin lateral position (Figure 1). We compared the operation position arrangement time, operation time, intraoperative blood loss and the incidence of intraoperative complications in the three groups [1]. The results showed that the three groups had successfully completed the operation, and there was no significant difference in the operation time, intraoperative blood loss and the incidence

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of related intraoperative complications ($P>0.05$). However, the improved design of javelin lateral position was shorter than the traditional position, and the incidence of related intraoperative complications was improved ($P<0.05$), that the work has been reported in line with the STROCSS criteria.



Figure 1: Use Da Vinci robot to. The design of the modified javelin lateral decubitus position.

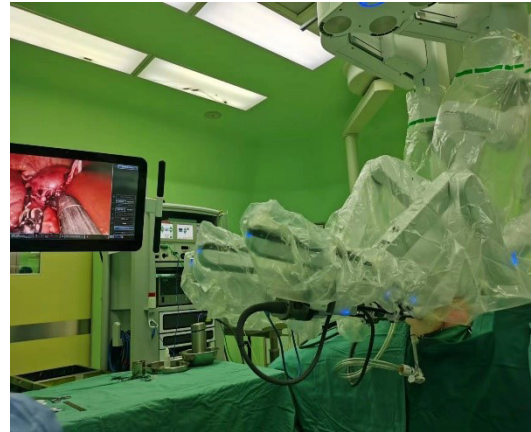
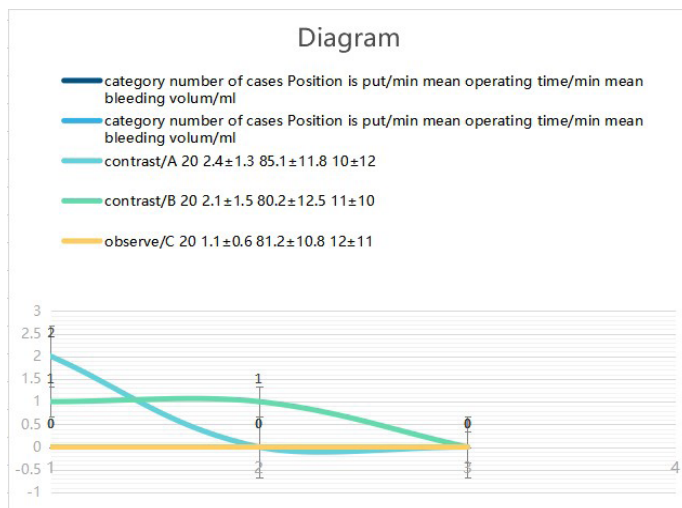


Figure 2: Da Vinci robotic surgery.

Table 1: Comparison of observation indexes among the three groups (X2).

| Category | Number of cases | Position is put/min | Mean operating time/min | Mean bleeding volum/ml | Pressure injury | Brachial plexus injury | Deep venous thrombosis |
|------------|-----------------|---------------------|-------------------------|------------------------|-----------------|------------------------|------------------------|
| contrast/A | 20 | 2.4±1.3 | 85.1 ± 11.8 | 10±12 | 2 | 0 | 0 |
| contrast/B | 20 | 2.1±1.5 | 80.2 ± 12.5 | 11±10 | 1 | 1 | 0 |
| observe/C | 20 | 1.1±0.6 | 81.2±10.8 | 12±11 | 0 | 0 | 0 |
| P | | <0.05 | >0.05 | >0.05 | <0.05 | 0.05 | <0.05 |

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Results

The results showed that the three groups had successfully completed the operation, and there was no significant difference in the operation time and intraoperative blood loss ($P>0.05$). However, the improved design of javelin lateral position is shorter than the traditional position, and the incidence of related intraoperative complications is lower ($P<0.05$) [2]. The lens and mechanical arm of Leonardo da Vinci robot will not cause pressure damage to children's head, face and body

during the whole operation process (Figure 2). The incidence of the second docking of Leonardo da Vinci robot is very low [3]. The operator's surgical vision is well exposed, which improves the hand efficiency, effectively avoids intraoperative and postoperative complications, and ensures the patient's surgical safety [4].

Conclusion

The Da Vinci surgical robot Xi system assisted laparoscopic pyeloureteroplasty uses the improved javelin side lying position, which can alleviate the unsafe factors of falling from the bed caused by the conventional posture, shorten the time of placing the posture [5,6]. prevent the possible pressure injuries and intraoperative complications caused by the conventional posture surgery, and the operation is more simple and convenient. The mechanical arm of the Da Vinci robot will not have the potential risk factors of crushing the head, face and trunk of the patient during the entire operation process, It is safe and reliable, making the whole process of positioning convenient and time-saving. It not only improve the connection efficiency of each operation, but also ease the work intensity of nurses and reduce the incidence of robot secondary berths. Operator satisfaction. It is safe and reliable to achieve good results, improve the operation safety, effectively avoid intraoperative and postoperative complications, and ensure the operation safety of patients, which is worth promoting.

References

1. Enrica Bentivegna, Meriem Koual. Docking for robotic extraperitoneal para-aortic lymphadenectomy with Da Vinci Xi surgical system. *J Gynecol ObstetHum Reprod.* 2021; 1: 667e669.
2. Nakayama Kentaro, Yoshimura Yuki, Sultana Razia. Single-port laparoscopiesurgery for ovarian cystectomy: A single-center analysis of 25 cases. *MolClinOncol.* 2021; 8: 1-3.
3. Metsker Oleg, Georgy Kopanitsa, Anton Malushko. Gynecological surgery and machine learning: complications and length of stay prediction. *Stud Health Technol Inf.* 2021; 5: 683e685.
4. Huang XT, Ji M, Zhao Z. Analysis of perioperative complications and in uencing factors of complications in Zhonghua fu chan ke za zhi. 2021; 5: 331e336.
5. Emma Vanhooren, Jan Baekelandt. Vaginal NOTES surgery in patients with prior hysterectomy: A first case series. *Asian J Endosc Surg.* 2021; 4: 487e491.
6. Agha R, Abdall-Razak A, Crossley E, Dowlut N, Iosifidis C, et al. For the STROCCS Group. The STROCCS 2019 Guideline: Strengthening the Reporting of Cohort Studies in Surgery. *International Journal of Surgery.* 2019; 72: 156-165.