

Re: Totally tubeless percutaneous nephrolithotomy: a prospective randomized controlled study

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Abstract The study is unique in terms of defining the safety of totally tubeless percutaneous nephrolithotomy (PNL). Furthermore, the authors state that the tubeless group has an advantage of less pain. However, we interpreted the results of pain-related comparisons different than that the authors had. In our opinion, the results gained show that there is no difference in terms of pain in both groups. The authors state that they have inserted a double J catheter to patients that were included in the tubeless group in addition to the nephrostomy as a conventional procedure. However, routine Double-J placement in addition to nephrostomy is not a common procedure. Additionally, the large-bore nephrostomy tube preferred is certain to cause pain, as stated in the previous studies. It has been shown that small-bore tubes cause less pain. It may have been more appropriate to compare the groups in such a manner. Even though we have stated our comments with respect to pain issues, it is evident that the study is unique in terms of defining the safety of a totally tubeless procedure.

We read the prospective study comparing a totally tubeless procedure with a 20 Fr nephrostomy tube plus 7 Fr Double-J with great interest. For our knowledge, this is the first study to report on totally tubeless percutaneous nephrolithotomy (PNL). The study has shown that the procedure is safe and effective. Following the first report of tubeless PNL by Bellman et al. [1], a great interest toward the procedure has arisen. The tremendous amount of studies published has all the mentioned advantages of shorter hospital stay, less pain and no problems encountered [2].

However, most of them discarded the disadvantage of placing a ureteral stent which required a second intervention for the removal. This study has shown that a total tubeless procedure can be done without increasing the rate of postoperative complications.

We think that there is a misleading interpretation of a part of the results and additionally a methodological confounding factor. First, the authors stated that pain visual analogue scale (VAS) and analgesic requirements favored the tubeless group with a statistical significance. However during the explanation of the methodology, it has been stated that Ketorolac 10 mg was administered three times a day and the patient had the opportunity to get on demand sublingual Buprenorphine 0.2 mg. It is understood that Ketorolac consumption is related with hospitalization time and Buprenorphine consumption is related with the pain of the patient. Since the hospitalization time is longer in the nephrostomy plus D-J group, it is not surprising to see that Ketorolac consumption was higher too. On the other hand, Buprenorphine consumption, which better represents the pain of the patient showed no significant difference between the two groups (tube: 0.24 ± 0.76 mg vs. tubeless: 0.11 ± 0.17 , $p = 0.093$).

Second, the authors stated that in the tube group all patients were administered with a D-J stent in addition to the nephrostomy (20 Fr). This group has been accepted as the conventional group. However, routine D-J stent placement in addition to the nephrostomy tube has not been defined in any previous reports. The place for D-J stent placement has mostly been for prolonged urinary drainage from the nephrostomy tract [3]. Even though the authors acknowledge the drawback of the approach they adopted, there are some further points requiring attention. Recently Marco De Sio et al. [4] reported that 12 Fr nephrostomy tube caused less pain than 22 Fr tubes within the first post-

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operative 8 h. However, this effect diminished within the following hours. This information has been published by many other researchers [2]. The authors further mention that D-J placement may reduce ureteral stricture formation. However, the stones they treated were either pelvic or ureteropelvic stones which has not been documented to cause ureteral stricture. The two groups been compared, on one hand included a D-J stent in addition to a large-bore nephrostomy tube and on the other hand the other group had no tubes placed. It is evident that the tube group will have a high VAS. Instead of preferring a large-bore nephrostomy, the authors could have placed no other tube in addition to the D-J stent or inserted a small-bore nephrostomy tube alone. This approach would most probably cause less pain and a lower VAS. Such a comparison may have resulted in different results and a lower gap of difference of VAS and Buprenorphine consumption.

Even though the study has the mentioned drawbacks; it is unique, since it is the first study to publish the total tube-

less PNL. The major conclusion which could be gained without any hesitation is that the total tubeless PNL is safe and effective in a selected group of patients.

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