Title

Manual Compared With Electric Vacuum Aspiration for Treatment of Molar Pregnancy

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approach for women who experience abnormal uterine bleeding (AUB) who desire contraception and who are under anticoagulation therapy. Despite their meticulous citation of the literature, several important issues need further consideration.

In the past decade, direct-acting oral anticoagulants have emerged as alternatives to vitamin K antagonists in stroke prevention in atrial fibrillation as well as in the prevention and treatment of venous thromboembolism.[2] Four direct-acting oral anticoagulants are currently approved: rivaroxaban, apixaban, edoxaban (direct Factor Xa inhibitors), and dabigatran (direct thrombin inhibitor).[2] In contrast to vitamin K antagonists, direct-acting oral anticoagulants have few drug–drug interactions and more predictable pharmacokinetics. Further, direct-acting oral anticoagulants are administered in fixed doses, without the need for routine coagulation monitoring. Owing to the more convenient use of this drug class, gynecologists are increasingly likely to encounter women treated by these drugs in their routine practice. However, although direct-acting oral anticoagulants have been shown to reduce the incidence of major bleeding events compared with vitamin K antagonists, they have been reported to increase the risk of AUB.[3] It is worth noting that this increased risk is attributed to all three direct Factor Xa inhibitors, including apixaban and edoxaban, and not only rivaroxaban[4]; in contrast to the claim by Bonnington and Autry.[1] Although unpractical with vitamin K antagonists, temporary dose reduction of direct-acting oral anticoagulants during the menstrual cycle may benefit women with AUB.[3] Alternatively, the use of dabigatran may be preferable in these patients.[3]

Regarding the use of hormonal therapy, including combined hormonal contraceptives and progestin-only contraceptives, a post-hoc analysis of the pivotal EINSTEIN-DVT and -PE study showed a comparable risk of recurrent thrombosis among women using and not using hormonal therapy during the anticoagulant period.[5] This observation further supports the feasibility of continued combined hormonal contraceptives in conjunction with anticoagulation therapy. However, of paramount importance is the recognition that adequate anticoagulant therapy is required for the safe use of combined hormonal contraceptives and that these agents should be discontinued before anticoagulation withdrawal.[3]

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REFERENCES

1. Bonnington A, Autry AM. Abnormal vaginal bleeding in women desiring contraception who are taking anticoagulation therapy. Obstet Gynecol 2018;131:632–34.
2. Chan NC, Eikelboom JW, Weitz JI. Evolving treatments for arterial and venous thrombosis: role of the direct oral anticoagulants. Circ Res 2016;118:1409–24.
3. Boonyawat K, O'Brien SH, Bates SM. How I treat heavy menstrual bleeding associated with anticoagulants. Blood 2017;130:2603–9.
4. Beyer-Westendorf J, Michalski F, Tittl L, Hauswald-Dorschel S, Marten S. Management and outcomes of vaginal bleeding and heavy menstrual bleeding in women of reproductive age on direct oral anti-factor Xa inhibitor therapy: a case series. Lancet Haematol 2016;3:e480–8.
5. Martinelli I, Lensing AW, Middeldorp S, Levi M, Beyer-Westendorf J, van Bellen B. Recurrent venous thromboembolism and abnormal uterine bleeding with anticoagulant and hormone therapy use. Blood 2016;127:1417–25.

In Reply:

We thank Drs. Rottenstreich, Bauman, and Kalish for their thoughtful letter in response to our Clinical Conundrum piece regarding contraceptive choice in a patient who has abnormal vaginal bleeding while taking anticoagulation therapy.[1] We appreciate their expertise in hematology and acknowledge that their familiarity with anticoagulation therapy is superior to our own. Our goal in this piece was to give evidence-based practical advice for a relatively common, complicated clinical scenario. Although we did mention rivaroxaban as an example of a direct Factor Xa inhibitor, we did not mean to imply it was the only direct-acting oral anticoagulant with this side effect. We also mention that decreasing anticoagulant dosing is a potential option for management of abnormal uterine bleeding for patients on anticoagulation therapy, but in practice have found that both hematologists and gynecologists are unwilling to risk the small potential increased possibility of thromboembolic events. We too referenced the Martinelli article[2] and acknowledge the lack of evidence for advising against the use of combined hormonal contraception in women who are actively receiving therapeutic anticoagulation treatment, as advised by the World Health Organization. However, similar to anticoagulant dose reduction, we have found that physicians are unwilling to assume the potential risk of clotting despite evidence to the contrary.

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REFERENCES

1. Bonnington A, Autry AM. Abnormal vaginal bleeding in women desiring contraception who are taking anticoagulation therapy. Obstet Gynecol 2018;131: 632–4.
2. Martinelli I, Lensing AW, Middeldorp S, Levi M, Beyer-Westendorf J, van Bellen B, et al. Recurrent venous thromboembolism and abnormal uterine bleeding with anticoagulant and hormone therapy use. Blood 2016;127: 1417–25.

Manual Compared With Electric Vacuum Aspiration for Treatment of Molar Pregnancy

I was both excited and perplexed by the report by Padrón et al[1] describing the similar outcomes observed in their retrospective analysis of manual vacuum aspiration and electric vacuum aspiration. As a long-time proponent of both manual vacuum aspiration and office evacuation

for molar pregnancy through 16 weeks, their results were reassuring. However, the association of manual vacuum aspiration use with a lower likelihood of developing uterine synechia as compared with electric vacuum aspiration was surprising. Of note, the authors do not describe what procedures or further testing were performed that led to the diagnosis of synechia. Were these asymptomatic women who were found to have synechia during some other evaluation, or did these women have Asherman's syndrome? In general, uterine scarring is uncommon after a vacuum aspiration procedure and previously has been associated with use of sharp curettage in addition to vacuum rather than the vacuum itself.[2] Adhesions are thought to result from destruction of the decidua basalis, a process that can occur with scraping with the sharp curette, and are less likely when vacuum is used without sharp curettage. Accordingly, most international medical organizations, including the American College of Obstetricians and Gynecologists, the International Federation of Gynecology and Obstetrics, and the World Health Organization, recommend that suction aspiration be performed without sharp curettage.[3–5] Because manual vacuum aspiration use represented a break from the norm, perhaps the health care providers using manual vacuum aspiration had a different technique or used sharp curettage differentially as compared with providers using electric vacuum aspiration. The authors should present more information, if available, on concomitant use of sharp curettage during the procedures and analyze whether sharp curettage use could be accountable for the difference in the synechiae rate.

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REFERENCES

1. Padrón L, Filho JR, Junior A, Sun SY, Chary RC, Maestá I, et al. Manual compared with electric vacuum aspiration for treatment of molar pregnancy. Obstet Gynecol 2018;131:652–9.
2. Gilman Barber AR, Rhone SA, Fluker MR. Curettage and Asherman's syndrome-lessons to (re-) learn? J Obstet Gynaecol Can 2014;36:997–1001.
3. Early pregnancy loss. Practice Bulletin No. 150. American College of Obstetricians and Gynecologists. Obstet Gynecol 2015;125:1258–67.
4. International Federation of Gynecology and Obstetrics. Consensus statement on uterine evacuation, July 2011. Available at: https://www.figo.org/sites/default/files/FIGO%20DC%20Statement.pdf. Retrieved April 14, 2018.
5. World Health Organization. Safe abortion: technical and policy guidance for health systems. Available at: http://apps.who.int/iris/bitstream/handle/10665/70914/9789241548434_eng.pdf;jsessionid=74D91BEA60B058139A738CC5A1F721DC?sequence=1. Retrieved April 14, 2018.

In Reply:

We thank Dr. Creinin for his careful reading of our study[1] and for his shared enthusiasm for using manual vacuum aspiration for molar evacuation. We would like to highlight the following points.

As described in the Materials and Methods section, patients with uterine synechiae were examined and diagnosed by hysteroscopy after reporting amenorrhea.[1]Given the rarity of synechiae reported in the literature after uterine evacuation for termination of pregnancy, we are also surprised by the occurrence of uterine synechiae after molar evacuation. We speculate that molar trophoblasts are more adhesive to the deeper endometrial layers, possibly increasing the occurrence of uterine synechiae in this population.

Because the rates of complete uterine evacuation are about 97% in termination of pregnancy without sharp curettage,[1] many guidelines do not recommend the use of sharp curettage to maximize complete uterine evacuation. However, in our experience with molar gestations, even with the addition of sharp curettage, we obtained complete evacuation in 87% of our patients.[1] This may be due to a larger trophoblastic volume and deeper myometrial penetration of molar trophoblast than in abortion.[1] Because sharp curettage was performed in both groups of patients undergoing molar evacuation, we did not attribute to sharp curettage the greater occurrence of uterine synechiae among patients undergoing electric vacuum aspiration. The evaluation of the effect of sharp curettage on the occurrence of complete molar evacuation and uterine synechiae would merit a randomized clinical trial.

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1. Padrón L, Rezende-Filho J, Amim-Junior J, Sun SY, Charry RC, Maestá I, et al. Manual compared with electric vacuum aspiration for treatment of molar pregnancy. Obstet Gynecol 2018;131:652–9.