Computing maximum flow rates

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found *CUAJ's* article by Richard and colleagues very interesting. 1 I agree with the authors' conclusion that a free uroflow (FF) should be performed before any urodynamic study. However, the conclusion that the presence of a 6-Fr catheter is obstructive and results in a significant decrease of Q_{max} (about 8 mL/s) is not what we have experienced.

With my colleagues, we have obtained very different conclusions in women.^{2,3}

Firstly, the large decrease in $Q_{\rm max}$ observed during intubated flow (IF) when compared with FF during the same session is only observed for 38% of our studied population. Mathematical modelling for initial bladder volume is 400 mL (normal detrusor, normal urethra) and gives a maximum decrease of $Q_{\rm max}$ as 3.4 mL/sec (catheter 7 Fr). Theoretical analysis demonstrates that differences between subgroups with and without decrease of $Q_{\rm max}$ can only be due to a urethral compression.

Secondly, recent theoretical computations using the VBN mathematical micturition model have given the following results (comparison for different volumes, catheter size, urethral obstruction, detrusor force). Looking only at the effect of bladder volume, with or without catheter 6Fr (normal detrusor, normal urethra): From 200 to 400 mL without catheter ΔQ_{max} = +8.3 mL/sec, while the maximum catheter effect is -2.25 mL/sec. So, the volume effect is always higher than the catheter effect.

Competing interests: Dr. Valentini declares no competing financial or personal interests.

References

- Richard P, Icaza Ordonez N, Tu LM. The effect of a 6Fr catheter in women: Are they obstructive or not? Can Urol Assoc J 2013;7:185-8. http://dx.doi.org/10.5489/cuaj.1320
- Valentini FA, Robain G, Hennebelle DS, et al. Decreased maximum flow rate during intubated flow is not only due to the urethral catheter in situ. Int Urogynecol J 2013;24:461-7. http://dx.doi.org/10.1007/s00192-012-1856-2

 Valentini FA, Nelson PP, Zimmern PE. Obstructive effect of a urethral catheter during voiding: Myth or realty? *Urotoday Int J* 2013;6:art 61. http://dx.doi.org/10.3834/uij.1944-5784.2013.10.08

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How appropriate is circumcision?

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he estimate of the newborn circumcision rate in Canada does not agree with the reference provided.¹ The authors state that the rate is "about 50%," whereas their reference (Sauve, Royle, Chalmers et al) report a rate of 31.9%.² Sauve and colleagues also note that rates across provinces and territories range from 6.8% to 44.3%.

Such wide variations in surgical rates raise questions about appropriateness of treatment.

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References

- DeMaria J, Abdulla A, Pemberton J, et al. Are physicians performing neonatal circumcisions well-trained? Can Urol Assoc J 2013;7:260-4. http://dx.doi.org/10.5489/cuaj.200
- Sauve R, Royle C, Chalmers B, et al. How many male infants get circumcised in Canada-and why? CPS Abstracts 2008. http://www.pulsus.com/cps2008/abs/070.htm. Accessed March 4, 2014.

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