

Antibiotic prophylaxis in hypospadias repair: It's time to re-evaluate

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Baillargeon and colleagues¹ have found that a single dose of preoperative antibiotics does not correlate with lower urinary tract infection and skin infection rates following hypospadias repair. While it is difficult to draw definitive conclusions from this institutional review, I commend the authors for renewing interest in a previously dormant issue. Until recently, the use of antibiotics in hypospadias has been overshadowed by “hotter” topics in the pediatric urology literature, such as prophylaxis for vesico-ureteric reflux.² For years, prophylactic antibiotics for hypospadias surgery have been a simple and intuitive routine that has been passed down from mentors and teachers. Indeed, the vast majority of pediatric urologists use both perioperative and postoperative antibiotics in this setting.³ A single dose of perioperative antibiotics or a few days of postoperative antibiotics are practices that likely have few negative consequences. So while we may not be able to quantify the benefit, we surely cannot be causing harm. But are we sure about that?

In the lay press, modern infectious crises like measles, polio and Ebola outbreaks are in the spotlight, intensifying anxiety around the uncontrolled spread of infection. Conversely, with widespread internet access and heightened awareness about the risks of antibiotic overuse, parents are more apt to worry about side effects and resistance patterns. Ideally, we should offer families a clear message about the relative risks and benefits of prophylaxis in this setting. But definitive answers in a contemporary context are lacking. As the authors point out, the literature to date favours the use of antibiotics. But the randomized studies on this are outdated – 31 and 10 years old.^{4,5} Our surgical approaches, stents, dressings and postoperative care routines have all evolved dramatically with time.⁶ It is time to re-evaluate our prescribing habits for hypospadias surgery.

While it seems like a straightforward issue to address, hypospadias represents a spectrum of abnormalities, and surgeon preferences are as varied as the condition itself. There are multiple variables at play – the severity of the defect, preoperative testosterone, surgical approach, the placement of a stent, open or closed drainage, and the use of postoperative antibiotics, just to name a few. When one considers that antibiotic use may also affect rates of fistula, dehiscence and meatal stenosis, the question gains greater significance and becomes still more complex.

A large prospective study with multivariate analysis would be the ideal way to glean more complete answers. It is a daunting endeavour, which may partly explain why we have been content with established practice patterns without much fuss. At least one multi-institutional randomized double-blinded study is underway to definitively address the value of antibiotics for hypospadias repair. In the meantime, Baillargeon and colleagues have primed us for a potential change in culture, which may result in shedding the antibiotic “security blanket” as hypospadias surgery continues to evolve.

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

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