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Letter to the Editor

## Inguinal hernia in girls: A retrospective analysis of over 1000 patients

*Dear Editor:*

The recently published paper “Inguinal hernias in girls: A retrospective analysis of over 1000 patients” [1] inspires a few practical lessons for surgeons caring for girls with inguinal hernias so they will not miss cases of complete androgen insensitivity syndrome (CAIS) [2].

A girl with CAIS is a phenotypically normal female with XY chromosomes, testes, and no Mullerian structures. She is likely to develop inguinal hernias and will experience primary amenorrhea. Although CAIS is rare, the majority of the patients with it develop inguinal hernias. If a surgeon is to know whether a pre-menstrual girl with an inguinal hernia has CAIS, some specific steps should be taken. If that is not done, the diagnosis will often be missed.

There are multiple ways to determine if a pre-menstrual girl with an inguinal hernia has CAIS, including obtaining pre-operative karyotype or pelvic ultrasound, both of which take time, cost money, and can cause anxiety. Serendipitously, the diagnosis of CAIS has been excluded if a pre-natal karyotype showed XX chromosomes.

At the time of the inguinal hernia repair the surgeon can look for Mullerian structures (easy with a laparoscopic approach and may require gentle tension on the round ligament located along the side of the hernia sac during an open repair). Also, a foreshortened vagina, which requires simple measurement, increases suspicion that the patient has CAIS [2].

The retrospective review which activated this letter describes no steps taken by the surgeons to assess the presence of CAIS. The stated in-

cidence of CAIS in the girls with inguinal hernias (.6%) is, not surprisingly and as noted by the authors, substantially less than the incidence in the literature. Cases were apparently noticed if a testis appeared in the hernia sac. Unfortunately a gonad does not always prolapse into the sac. This review looked at girls up to age 15, but CAIS is only a consideration if the patient is premenstrual. In girls with inguinal hernias who have menstruated, the incidence of CAIS is zero.

If a surgeon repairs inguinal hernias in a girl and does not recognize that she has CAIS, the patient will likely present as an adolescent with a history of primary amenorrhea and an exam revealing inguinal hernia scars.

Sincerely,

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- [1] Dreuning K, Barendsen R, van Trotsenburg P, et al. Inguinal hernia in girls: a retrospective analysis of over 1000 patients. *J Pediatr Surg.* 2020;55:1908–14.
- [2] Sarpel U, Palmer SK, Dolgin SE. The incidence of complete androgen insensitivity in girls with inguinal hernias and assessment of screening by vaginal length measurement. *J Pediatr Surg.* 2005;40:133–7.