

Urinary tract infections during pregnancy are more common in women with non-operatively managed vesicoureteral reflux

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Background

- Vesicoureteral reflux (VUR) is common in females
- Treatment of VUR has shifted towards non-operative management
- Outcomes of pregnant women with a history of VUR that was not surgically corrected are unclear

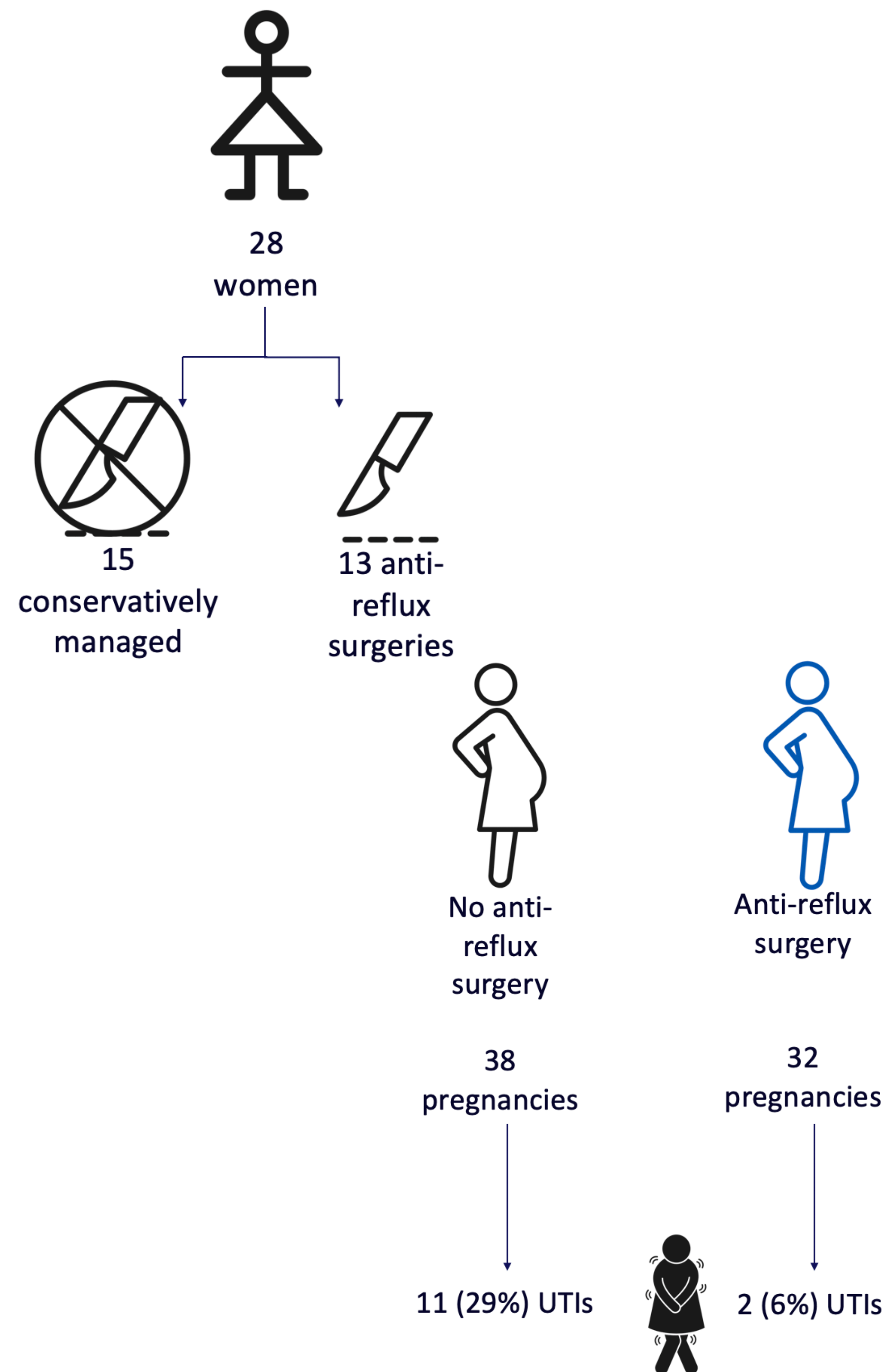
Objectives

To determine urinary tract infection (UTI) incidence during pregnancy and associated maternal and fetal outcomes for women with a history of conservatively managed VUR compared to those who underwent surgical correction of their reflux

Methods

- Population:
 - Women >18 years
 - Experiencing a pregnancy in 2006-2019
 - VUR diagnosis
- Primary outcome: Incidence of UTI
 - Women with history of anti-reflux surgery vs conservative management
- Secondary outcomes: Adverse pregnancy outcomes
 - Gestational hypertension (HTN)/pre-eclampsia
 - Spontaneous abortion
 - Pre-term delivery

Results



| Variable | No Anti-reflux Surgery (15 women, 38 pregnancies, 30 deliveries) | Anti-reflux Surgery (13 women, 32 pregnancies, 21 deliveries) | P-value |
|-------------------------------|--|---|---------|
| UTI during pregnancy | 11/38 (29%) pregnancies | 2/32 (6%) pregnancies | 0.03 |
| Afebrile | 10/38 (26%) pregnancies | 2/32 (6%) pregnancies | 0.03 |
| Febrile | 1/38 (3%) pregnancies | 0/32 (0%) pregnancies | 1.0 |
| Gestational HTN/pre-eclampsia | 6/38 (16%) pregnancies | 2/32 (6%) pregnancies | 0.28 |
| Spontaneous abortion | 8/38 (21%) pregnancies | 10/31 (32%) pregnancies | 0.41 |
| Term delivery (>37 weeks) | 25/30 (83%) deliveries | 20/21 (95%) deliveries | 0.38 |
| Pre-term delivery (<37 weeks) | 5/30 (17%) deliveries | 1/21 (5%) deliveries | |

Table 1. Comparison of UTIs during pregnancy and adverse pregnancy outcomes in conservatively vs operatively managed VUR

- UTIs were significantly more common in the conservatively managed group
 - Only one UTI was febrile, requiring hospitalization
 - Concomitant diagnosis of gestational HTN in this patient
- Gestational hypertension and pre-term delivery more common with conservative management (not significant)

Conclusions

- In this small cohort of women with a history of VUR, those who did not have operative correction experienced significantly more UTIs during pregnancy
 - Most UTIs were afebrile
 - No significant difference in pregnancy outcomes

Implications

- Women with a history of conservatively managed VUR should be closely monitored for UTIs during pregnancy
 - Does not appear to adversely impact pregnancy outcomes
- A multi-institutional prospective study would better evaluate outcomes of girls with conservatively managed VUR