

# Gynecology Concerns in Pediatric Patients with Genitourinary Vascular Anomalies

Anna Ujvary<sup>1</sup> Maya Younoszai<sup>2</sup> Xing Wang<sup>3</sup> Katherine Debiec<sup>4</sup>  
University of Washington School of Medicine<sup>1</sup> Seattle Children's Research Institute<sup>2,3,4</sup>

## BACKGROUND

- Vascular anomalies in the genitourinary and perineal regions are underreported in the current literature, despite their significant impact on gynecological health.
- This study aims to compare the prevalence of symptoms, functional impairment, management, and treatment outcomes between vascular malformations (VMs) and infantile hemangiomas (IHs).
- We hypothesize that VMs result in more significant gynecologic symptoms, functional impairment, and lead to more frequent counseling on reproductive health.

## METHODS

### Study Design & Participants

- Retrospective chart review of 119 patients aged 0–21 years with at least one GUP-VA and vulvar anatomy. Excluded: patients without vulvar anatomy or managed outside Seattle Children's.

### Data Collected

- Demographic information, anatomic location of lesion, presenting symptoms, functional impairments, gynecologic concerns, and pubertal and reproductive counseling

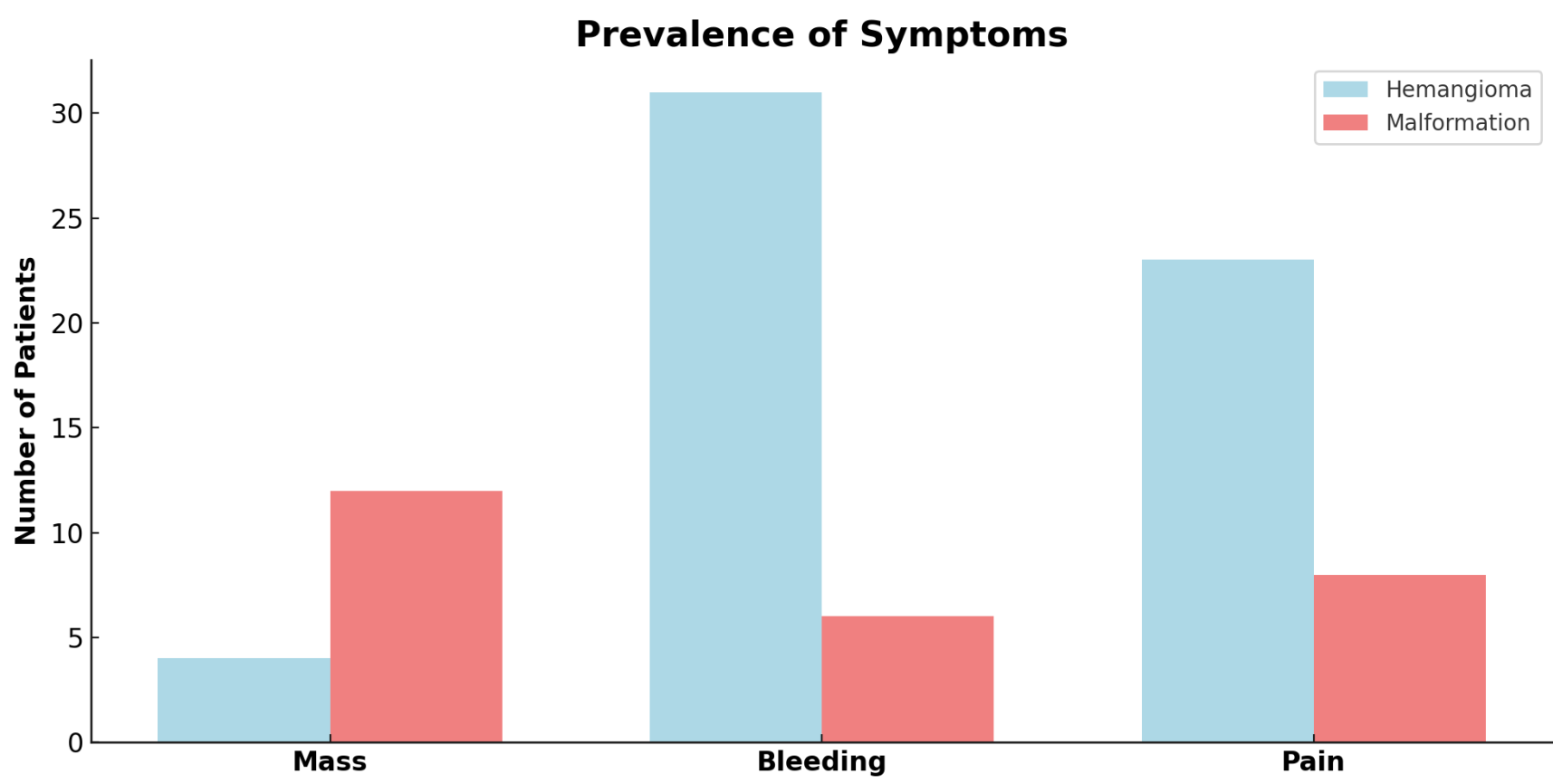
### Outcomes

- Improvement, stabilization, or progression of symptoms.
- Recurrence, additional treatments, and follow-up duration.

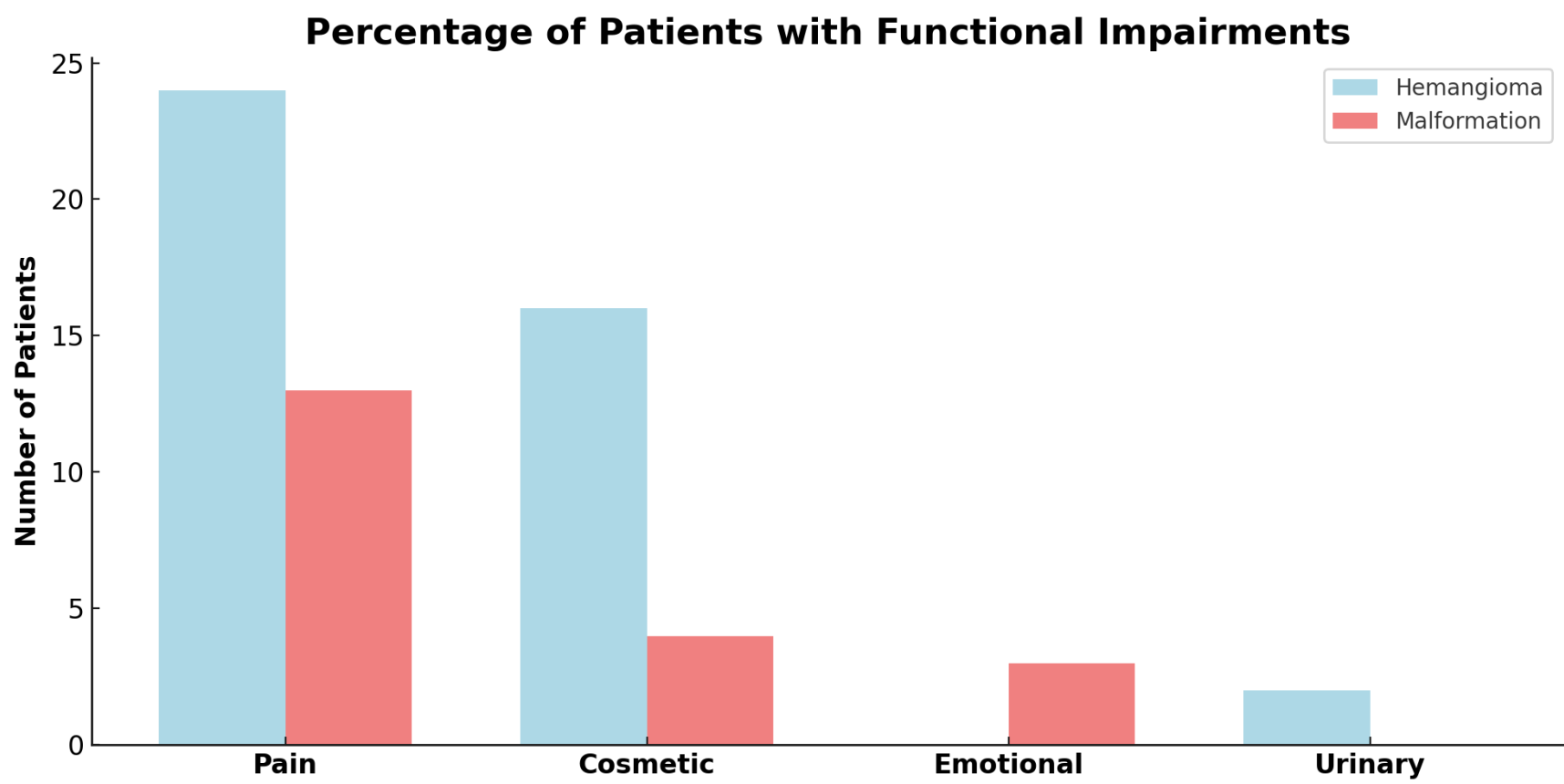
### Statistical Analysis

- Statistical analysis was performed using Mann-Whitney U tests for comparing continuous variables and Fisher's exact test for categorical data.
- Significance set at  $p < 0.05$ .

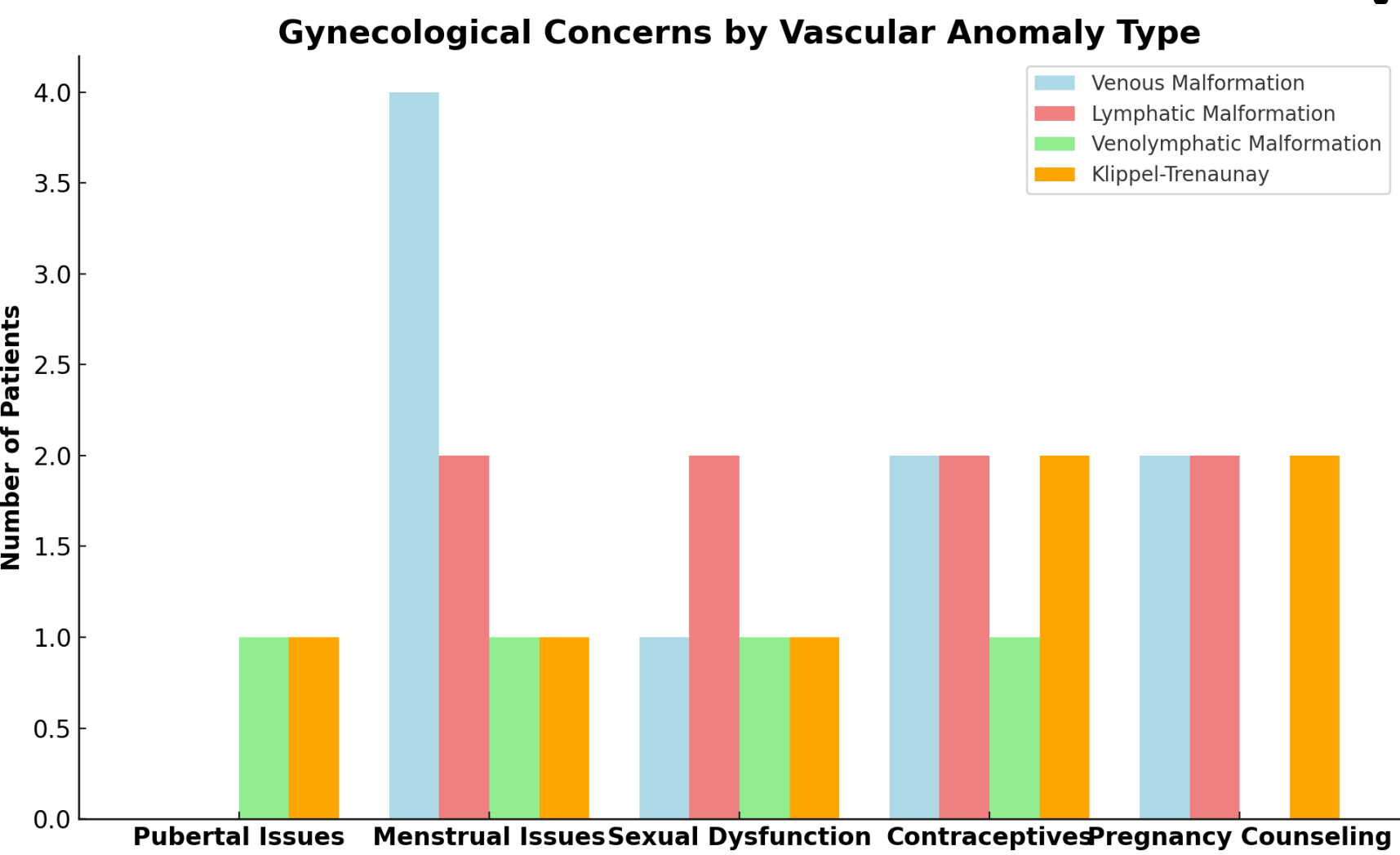
## RESULTS



VMs were more likely to present as a mass ( $p < 0.001$ ) and dyspareunia ( $p = 0.03$ ) compared to IHs.



VMs had higher rates of pain (40% vs. 24%,  $p = 0.002$ ) and emotional concerns (15% vs. 0%,  $p = 0.005$ ) compared to IHs.



- Menstrual issues, sexual dysfunction, and contraceptive counseling were common across malformations, with no significant differences between subtypes.

## DISCUSSION

### Key Findings:

- VMs in the GUP region tend to present with more severe and functionally impairing symptoms than IHs, particularly regarding pain, emotional concerns, and gynecologic issues
- Gynecologic care (menstrual, contraceptive, and pregnancy counseling) is important for patients with VMs, especially those with venolymphatic and lymphatic malformations.

### Clinical Importance:

- Multidisciplinary management should be emphasized in treatment plans to improve physical and emotional well-being, as well as reproductive health outcomes.
- The findings highlight the need for early intervention and comprehensive counseling in managing the gynecologic and reproductive health of pediatric patients with vascular anomalies.

## CONCLUSIONS

- This study highlights the complexity of managing GUP-VAs, particularly VMs, which are correlated with physical and emotional impacts. By highlighting the prevalence of gynecologic concerns, we emphasize the importance of integrating reproductive health into treatment plans.

## ACKNOWLEDGEMENTS

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## Plain Language Summary

This study looks at children with vascular anomalies (abnormal vessels) in the genital and urinary regions. We focused on how these conditions affect gynecologic health, such as menstrual problems and the need for counseling about contraception and pregnancy. We found that vascular malformations (VMs) cause more severe symptoms, like pain and emotional issues, compared to infantile hemangiomas (IH), a common type of vascular tumor. Patients with VMs were also more likely to experience gynecologic problems and receive reproductive health counseling. Our findings highlight the importance of early diagnosis and specialized care to improve both physical and emotional well-being in these patients. More research is needed to further explore these issues and improve care for children with vascular anomalies.