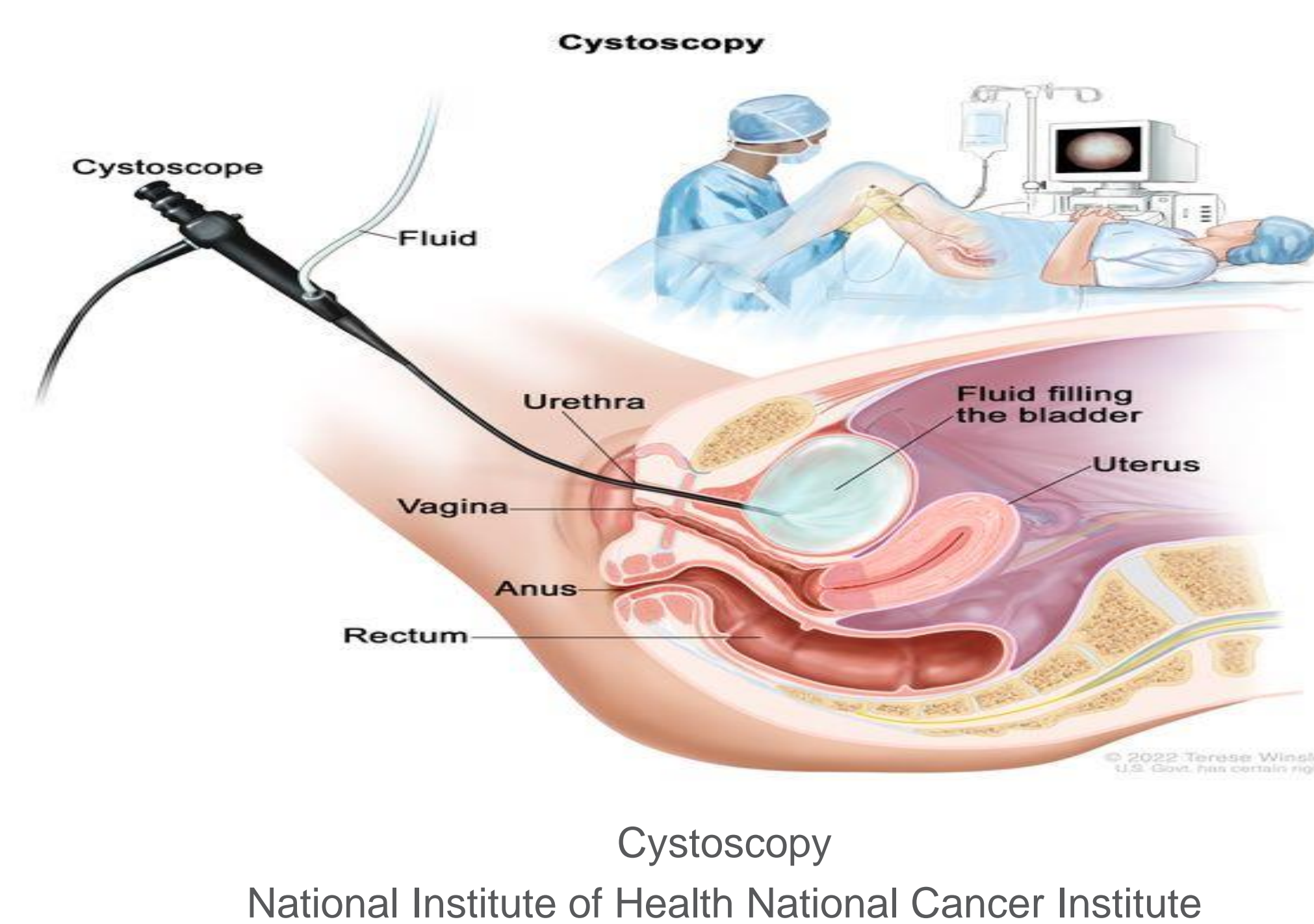


# Multiple Recurrences of Papillary Urothelial Neoplasia of Low Malignant Potential (PUNLMP) in a Young Adult Female

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## Background

- Papillary urothelial neoplasm of low malignant potential (PUNLMP) is a nonmalignant and noninvasive bladder tumor.
- Men in the sixth decade of life are the most common demographic, with the most common presenting symptom being painless hematuria.
- Cystoscopy is the gold standard for diagnosis, and transurethral resection of a bladder tumor (TURBT) is the primary form of treatment.
- PUNLMP has a high recurrence rate (**30.2%**) and a moderate rate of progression (**18.9%**).
- This case report describes the diagnoses and management of a young women with multiple recurrences of PUNLMP.



## Case Report

- A **24 year-old** Caucasian female was noted to have microscopic and macroscopic hematuria during pregnancy. On questioning, she reported a **two year history of intermittent, painless, gross hematuria**.
- Patient denied history of tobacco use or chemical exposures. She denied past medical history. Family history significant only for angiosarcoma in her paternal grandfather and breast cancer in her mother.
- Renal and bladder ultrasound was negative and she was referred to urology after delivery. CT urogram showed a filling defect of the bladder.
- Cystoscopy was performed showing a single bladder mass. **TURBT** was performed and pathology showed **PUNLMP**.
- Genetic testing performed at that time showed only a heterozygous variant of unknown significance in the NBN gene.
- **Refer for figure 1** for timeline of diagnosis, treatment, and continued follow up.
- The patient is currently scheduled to have a follow up cystoscopy at 3 months post-op from her 3<sup>rd</sup> TURBT.

## Timeline (2017 – present)

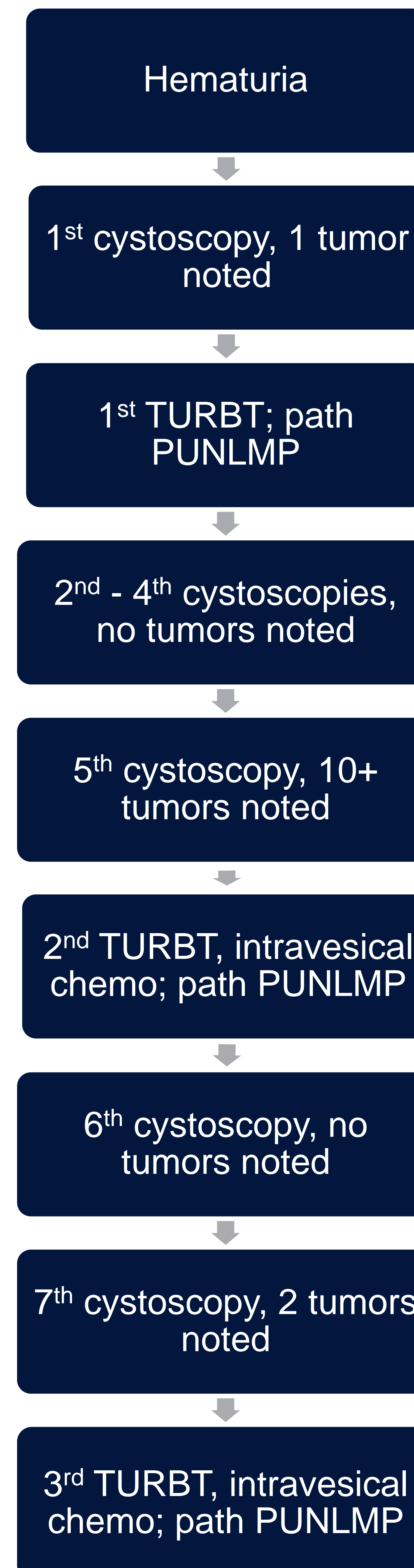


Figure 1

## Discussion

- **PUNLMP** has a high recurrence rate, and the effects of multiple cystoscopies and multiple TURBTs on the bladder and urethra over many years is unknown due to most studies reporting an average of five years of follow up.
- The bladder urothelium scars due to excision of lesions and electrocautery use after resection. This could potentially cause bladder dysfunction in the future.
- Additionally, cystoscopies could cause urethral injury and could lead to urinary incontinence if the sphincter becomes damaged. Inadvertent creation of fistulas could also be another consequence of multiple cystoscopies.
- With a lack of studies examining long-term follow up, providers cannot adequately counsel on the expectations of long-term management for non-geriatric patients.

## Conclusion

- Long-term surveillance is needed for cases of PUNLMP in younger populations due to high rate of recurrence.
- There needs to be improved reporting of physical outcomes of follow up procedures in order to plan appropriate long-term surveillance.

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