APPENDIX

Diagnosis	Presentation	Treatment	Incidence
Benign masses			
Cystic tumors:			
1) **Gartner duct cysts:** Remnants of the mesonephric duct.	These cysts are usually found in the upper lateral vagina. Patients may feel discomfort with intercourse.	If they are symptomatic, they can be excised. Symptomatic cysts can also be biopsied. Vaginal adenosis can be ruled out with Lugol's solution staining. If the cysts are small and asymptomatic, they can be left.	12.5%.
2) **Paramesonephric duct cyst:** Remnants of the paramesonephros and lined with secretory epithelium. Mullerian in origin. These are lined with secretory cells and often contain mucous.	Can be found anywhere in the vagina. Patient may feel discomfort with intercourse.	If symptomatic, they can be excised. Vaginal adenosis can be ruled out with Lugol's solution staining.	1–5%
3) **Inclusion cysts:** These cysts are formed by trapped vaginal mucosa in the submucosal layers. They contain keratin and squamous cells. They are often secondary to vaginal trauma from childbirth, vaginal repairs for tears, due to episiotomies or colporrhaphy.	As above	They can be excised if patient have symptoms.	1/200

4) **Endometriosis:** Endometrial tissue growing outside the uterus. Endometriosis can be found in the vagina due to erosion/implants along a surgical site.	Endometriosis can appear blue or brown in color. At times, lesions can be palpated in the posterior vaginal wall fornixes or along the uterosacral ligaments. These would cause pain and discomfort with intercourse.	Excision may require laparoscopy. Small lesions visualized in the vagina could be vaporized with laser or excised. Medical management of endometriosis could also help treat these lesions.	Approximately 10%.
5) **Skene duct cyst:** These para-urethral glands release mucous which protects and lubricates the urethral opening. These glands are homologous to the prostate.	Can present as a painful or asymptomatic mass inferolateral to the urethra.	If they are symptomatic, they can be excised.	1/2000–1/7000
6) **Bartholin gland cyst:** Glands at the vaginal introitus at the 4 and 8 o'clock positions. They are lined with secretory epithelium and secrete mucous. *The differential for a midline anterior vaginal mass includes a urethral diverticulum, fibroepithelial polyp, skene duct cyst, cystocele (pelvic organ prolapse) or malignant tumors.	Patients can present with non-infected cysts or abscesses. They can present with vaginal discomfort, fullness, bleeding, or discharge.	These cysts can be treated with incision and drainage, word catheter insertion of marsupialization.	Symptomatic cysts make up about 2% of yearly gynecologic visits
Solid tumors: 1) **Leiomyoma (fibroids):** Vaginal, cervical, or urethral fibroids are rare	Patients can present with vaginal bleeding and/or discomfort with	These can be surgically excised.	Found in up to 70% of women

benign tumors which have arisen from a smooth muscle cell. You can also have prolapsed submucosal fibroids through the cervix. These fibroids are considered "parasitic" as they are not uterine.	intercourse. Urethral fibroids may present with lower urinary tract symptoms.		
2) **Fibroepithelial polyp:** An uncommon polyp which can enlarge in pregnancy. They are lined by squamous epithelium and have a fibrovascular stalk.	Patients may present with vaginal bleeding and discomfort.	These can be excised.	Rare
3) **Condyloma acuminatum:** HPV related tumors which can be found on the cervix, along the vagina, vulva, and perianal areas.	Patients may present with bleeding, cosmetic concerns, discomfort, or pruritus.	These can be treated with topical therapies, cryotherapy or excision.	1% annually
4) **Urethral caruncle:** Red and friable lesion at the urethral meatus, often found in post-menopausal women.	Women may present with bleeding, pain (as well as dysuria).	Topical estrogen therapy, systemic hormone replacement therapy.	1.6% incidence of malignancy
5) Cervical polyps	Patients may present with vaginal bleeding.	They can be excised.	Incidence ranges from 2–5%
6) **Prolapsed endometrial polyps:** 5% of endometrial polyps are malignant.	Patients may present with vaginal bleeding.	Patients often require hysteroscopy. Polyps can be excised at that time.	Incidence in reproductive aged women with abnormal uterine bleeding is 20–40%
Pelvic organ prolapse 1.) Cystocele 2.) Rectocele	Women may present with vaginal bulge, discomfort, bleeding.	Treatment can include pessary insertion, surgical repair.	As high as 50%

3.) Complete procidentia	They may present with urinary or fecal incontinence.		
Prolapsed ureteroceles **Urethral prolapse**	Can present with pain (including dysuria), urinary retention, urinary incontinence. As above	May require cystoscopy, surgical reduction. As above	1/5000–1/12,000. Uncommon and can present in 1/3000 children
Malignant tumors of the vulva, vagina, and cervix	Patients may present with vaginal bleeding, vulvar bleeding, pain, discomfort.	Discussion of treatment is not within the scope of this case series.	