



Vulva angiomyofibroblastoma – a case series

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Introduction

Angiomyofibroblastoma (AMF) is a rare mesenchymal tumor most commonly found in the female lower genital tract¹. It consists of mainly stromal cells and prominent vasculature. Together with aggressive angiomyxoma AAM) and cellular angiofibroma (CAF), AMF belongs to the mesenchymal tumor group which are usually benign². Sarcomatous transformation has been reported but it is very rare. AMF commonly affects premenopausal women and may resemble Bartholin’s cyst. It is important to have a histological diagnosis as its mimic AAM is more locally infiltrative and has high recurrence rate after excision.

Case series

We describe 5 cases of AMF (Table 1) who presented to KK Women’s and Children’s Hospital between 2012 and 2022. They presented at different ages (41, 46, 61, 61, 71 years) with enlarging vulva lumps. Imaging studies of the vulva lesions mostly showed non-specific features which are not concerning for malignancy. All patient underwent excision of the lesions with histological confirmation of AMF (Figures 1-3) and recovered well postoperatively.

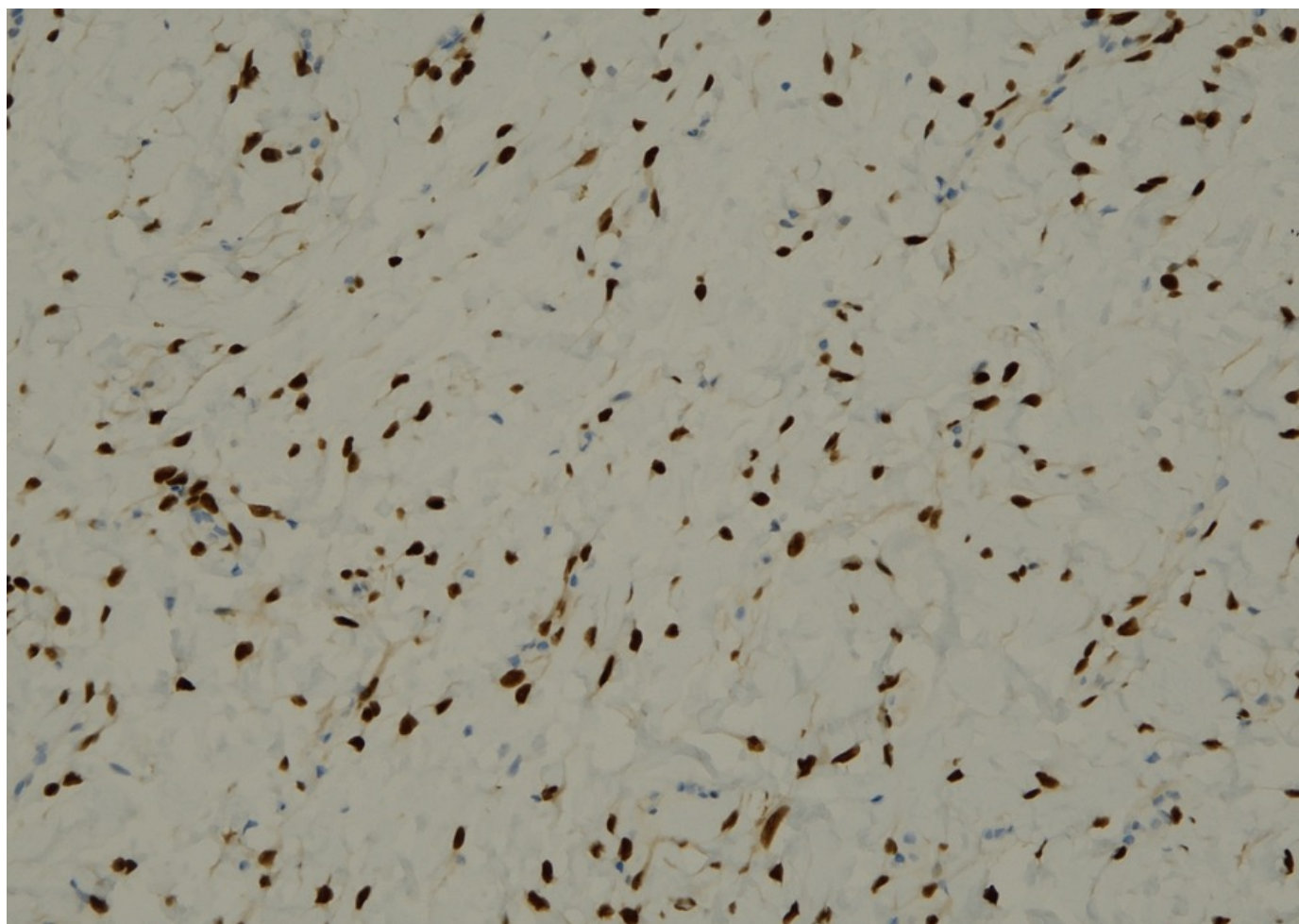
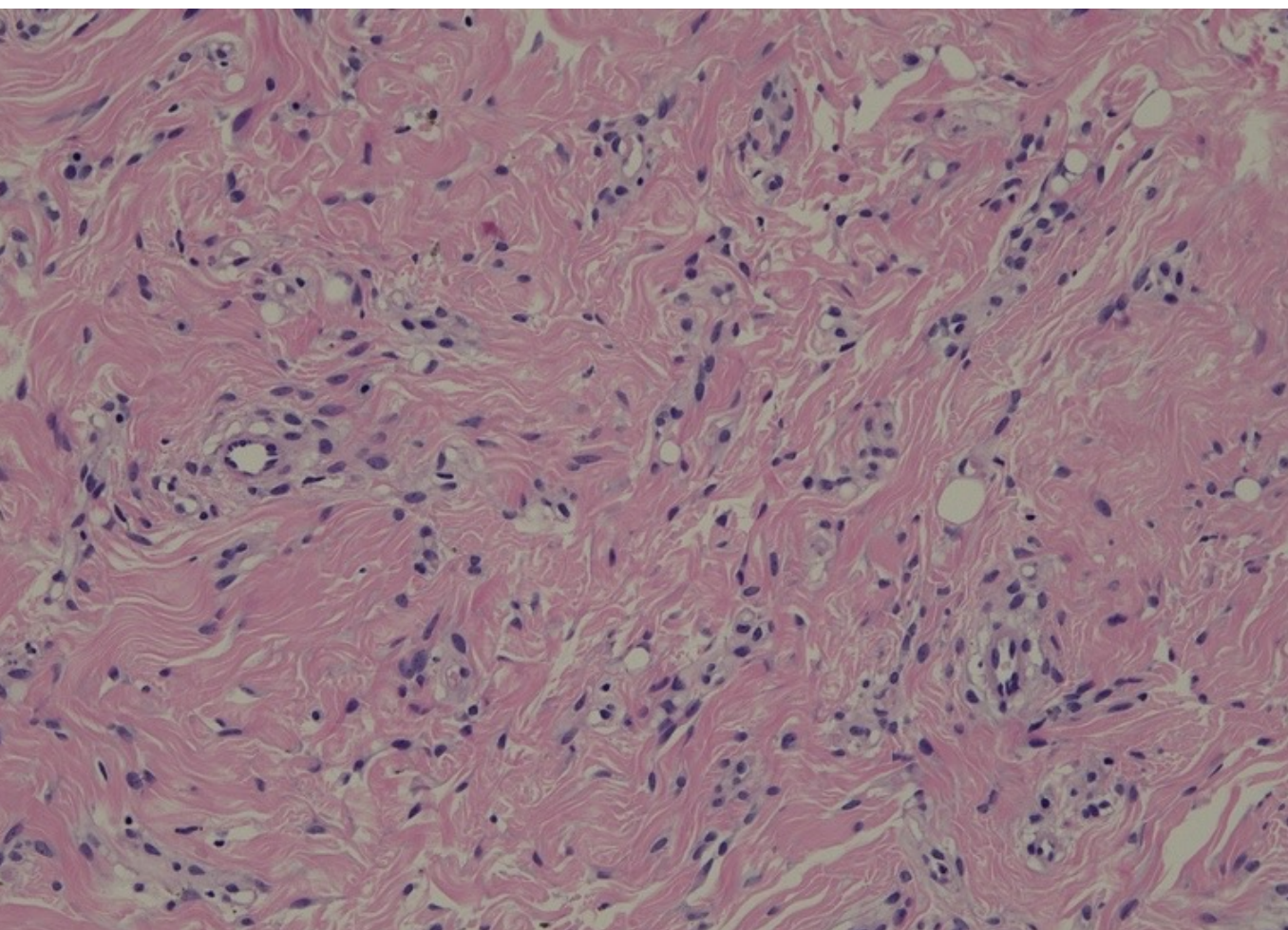


Figure 1. A The tumour cells are bland, spindle to ovoid, with centrally hyperchromatic nucleus. The tumour cells often cluster adjacent to blood vessels. Mitotic activity is infrequent to not identifiable. B. ER staining.

Table 1: Summary of cases

	NTH	GSC	CSJ	WMM	LME
Demographics	71/M/0/7	41/M/0/2 CS	46/M/1/2	61/M/0/1	61/M
Co-morbidities	2010 PAP normal DM on insulin HTN, HLD, LBBB	2014 PAP normal Regular menses	HPV in Jul 2022: other HR +	I&D of vulvar lump in private years ago – unclear histo. Told incomplete removal HPV 2020 normal	HTN, HLD on amlodipine and atorvastatin TIA in 2014 on Plavix HPV in Sep 2022 normal
Presenting complaint	Vulva swelling for 6 months in 2010. Given antibiotics. Defaulted. Seen again 2 years later. Enlarging cyst.	Vulva lump Tried 2 courses of abx (clarithromycin and ciprofloxacin)	Enlarging vulva lump in Jul 2022 over many years No pain AUB	Vulva lump for past 10 years, enlarging – 2cm No pain	Vaginal lump for 1 week
Examination	6x4cm left vulva lump, non tender, fluctuant. ? Bartholin abscess	3cm left vulva lump for a month, non tender ? lipoma	4cm left vulva cyst	2cm left vulva lump	2cm right vulva lump
Investigations	Nil	US vulva (Feb 2014): well defined ovoid lesion 3.4x1.9x1cm, predominantly solid. Features are non-specific	DCH polypectomy and biopsy of vulva lump sent. Histo: endocervical polyp with foci CIN1-2. Angiomyofibroblastoma US vulva: hypoechoic lesion with cystic area in left vulva, 5.3x3.6x1.8cm. Mild vascularity. Beneath the skin within the s.c layer. No deep extension	Nil	Nil
Treatment	I&D and cystectomy: left vulva cyst: 4x4cm	Excision of left vulva lump in 2014: Left vulva mobile lump 2.5x2.5cm	Aug 2022: Laser cone biopsy of the cervix (colpo: Type 1 TZ with high grade changes). Excision of left vulva lump done. 5-6cm.	Excisional vulva biopsy in Jan 2021: 2cm vulvar lump	Excision of vaginal polyp in Oct 2022: 2cm vaginal polyp
Histology	Benign myofibroblastoma	Angiomyofibroblastoma, in areas extending to resection margin	CIN1/2, clear margins Angiomyofibroblastoma. Present at radial margins.	Benign mesenchymal lesion favoring an angiomyofibroblastoma	Angiomyofibroblastoma
Follow up	Discharged	US follow up in Jul 2014: vulva normal	Routine follow up	Routine follow up	Routine follow up

Conclusion

Our case series highlighted the possibility of women in the older age group developing AMF and the importance of a histological diagnosis for prognostication and follow up planning. AMF should be considered as a differential in any women who presents with a long-standing vulva lump so that appropriate treatment can be offered.

References:

- Nielsen GP et al., Mod Pathol 1996; 9: 284– 291
- Nielsen GP et al., Int J Gynecol Pathol. 2001;20:105–127.