

Case Report

Two cases of endocervical villoglandular adenocarcinoma: Support for conservative management

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Villoglandular adenocarcinoma of the cervix (VGA) is a rare subset of cervical cancer. Unique features of this variant include its young age of onset, exophytic presentation and superficial involvement of the underlying cervical tissue. It has been suggested that this variant has an excellent prognosis and may be managed conservatively when compared to more common squamous cell or adenocarcinoma variants (Lataifeh et al., 2013). A literature review of papers published between 2000 and 2013 was performed using PubMed search terms “villoglandular” “cervical” and “adenocarcinoma”. Given the paucity of research in this area, additional peer-reviewed articles were found through reviewing the bibliographies of identified references.

Villoglandular adenocarcinoma was first described in 1989 by Young and Scully, in their report of 13 patients with an average age of 33 (Young and Scully, 1989). A young age of incidence has been supported with subsequent series, ranging from 36–45 by different authors (Young and Scully, 1989; Jones et al., 1993; Korach et al., 2009; Utsugi et al., 2004). The typical presentation is an exophytic lesion that is first detected after irregular vaginal bleeding, postcoital bleeding, or abnormal Pap smear (Jones et al., 1993; Korach et al., 2009; Garcea et al., 2003). This tumor is typically thought to be a slow-growing

tumor with rare lymphovascular space invasion or lymph node metastasis. VGA often presents as at least stage IB1, however conservative management has been described (Jones et al., 1993).

Therefore, it is important to differentiate this variant from other cervical carcinomas because of the indolent nature of VGA and possibility for fertility-sparing or less morbid treatment. This is especially salient given that this tumor can occur in young, reproductive age women. In this paper, we describe two cases of villoglandular adenocarcinoma (VGA) at our institution, with evidence supporting conservative management of early stage disease. Conservative management in this setting is defined as less invasive surgical treatment without adjuvant radiation therapy, including local excision with cold knife cone or extrafascial hysterectomy, as opposed to radical hysterectomy with or without radiation therapy.

Case reports

Two patients were diagnosed with villoglandular adenocarcinoma of the cervix at our institution during the last 5 years. Both were women in their thirties who presented with postcoital vaginal bleeding and were diagnosed with Stage IB1 villoglandular adenocarcinoma. Both cases were managed conservatively, one with cold knife cone excisional biopsy (CKC), and one with CKC followed by simple hysterectomy. At 41 and 18 months respectively, both patients showed no evidence of disease.

Case 1

A 37-year-old female presented to a general gynecologist with post-coital bleeding and mucousy discharge. An exophytic lesion of the cervix was biopsied. The review of pathology revealed villoglandular adenocarcinoma of the cervix, and she was referred to a gynecologic oncologist. The decision was made to proceed with a cervical cold knife conization. Prior to her procedure, the patient underwent magnetic resonance imaging (MRI) of the pelvis showing focal cervical abnormality at the external os without evidence of local extension. On CKC, an approximately three centimeter exophytic cervical lesion protruding from the endocervix was visualized. Pathology confirmed well-differentiated endocervical adenocarcinoma, villoglandular variant. Focal minimal stromal invasion (1–2 mm) was present, with no significant nuclear atypia and no lymphovascular space invasion. Given that

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this tumor was widely excised with CKC no further surgery or therapy was carried out. Follow-up is being conducted according to SGO guidelines for cervical cancer (Salani et al., 2011), and she remains with no evidence of disease at 41 months.

Case 2

A 33-year-old female presented to a general gynecologist after a one-year history of postcoital bleeding. She had been previously evaluated in an outside hospital emergency department and was referred for a “mass” seen on her cervix. Her most recent Pap smear was two years prior and was negative. She did have a remote history of abnormal Pap smear 12 years prior, the details of which were not available. On exam there was a 2–3 cm polypoid exophytic mass protruding from the external cervical os, which was assumed to be a simple cervical polyp and was completely removed in the office. Initial pathology returned as endocervical adenocarcinoma with features of villoglandular adenocarcinoma. Post-procedure MRI was performed with no evidence of cervical mass or metastasis. She was referred to a gynecologic oncologist who performed local excision with cold knife cone biopsy. Final pathology revealed focal residual villoglandular adenocarcinoma in the background of endocervical AIS, with negative margins (Fig. 1). Subsequent management was discussed with the patient, and given her undesired fertility and the understanding of the reported natural history of villoglandular adenocarcinoma decision was made to proceed with robot-assisted laparoscopic extrafascial total hysterectomy with ovarian conservation. Pathology showed residual adenocarcinoma in situ with no invasive cancer. Follow-up is being conducted according to SGO guidelines for cervical cancer (Salani et al., 2011). She remains free of recurrence 18 month post-hysterectomy.

Stage IB1 cervical cancer is typically treated with radical hysterectomy, radical trachelectomy or primary chemoradiation (National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology: Cervical Cancer, in Version 1.2014., 2014). This case series

demonstrates that IB1 villoglandular adenocarcinoma without lymphovascular space invasion can be managed more conservatively, with extrafascial hysterectomy or excision of the lesion with close follow-up. Although much of the previously published literature on VGA describes patients who were treated with radical surgery and/or radiation therapy in concordance with standard treatment, many have also reported conservative treatment with good outcomes such as ours. One study described five patients with Stage I disease treated with conization alone, all of whom were alive without recurrence at the time of that publication, from 13 to 55 years after treatment (Jones et al., 1993). Korach et al. described five cases of Stage I disease treated with conservative therapy with no evidence of disease at the time of publication: three cases of IA1, one treated with CKC and two treated with total extrafascial hysterectomy, and two cases of IB1, both treated with total hysterectomy (Korach et al., 2009).

Conservative or fertility-sparing therapy may not be beneficial for all patients depending on pathologic characteristics and stage including lymph node (LN) metastasis. LN metastasis, although not a part of clinical staging of cervical cancer, is an important prognostic factor. VGA does not frequently metastasize to lymph nodes. Lataifeh et al. describe 12 patients with stage IB1, only one of whom was found to have pelvic lymph node metastasis (Lataifeh et al., 2013). Utsugi et al. describe only one of 13 patients with LN mets, who was also Stage IIB. Of IB1 patients, zero of 10 had LN mets (Utsugi et al., 2004). Lymphovascular space invasion (LVSI) is another prognostic factor that may be less common in VGA, as first described by Young and Scully (Young and Scully, 1989; Schorge et al., 1997). Utsugi et al. describe 13 cases, with 4 of the 13 patients having lymph capillary space invasion (Table 1).

Further follow-up of our patients and women with the same diagnosis is needed to reveal long-term outcomes. Villoglandular adenocarcinoma is a rare cervical cancer variant that deserves an individualized approach to management based on patient and physician interpretation of risk, patient desires for future fertility and appropriate analysis of subtle pathologic findings. Furthermore, accurate diagnosis is of utmost

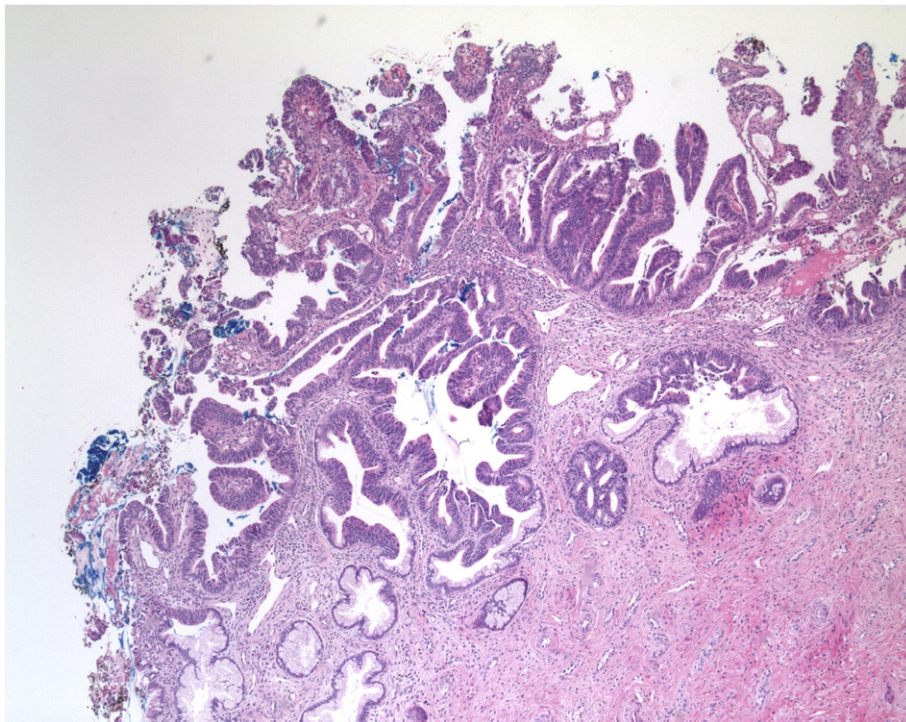


Fig. 1. Low power field demonstrating branched villous architecture. Neoplastic epithelium is partially replacing the lining of some endocervical glands, however there is no invasion of endocervical stroma. Papillae are lined by endometrial and endocervical-type epithelium.

Table 1
Treatment and outcomes of stage 1 villoglandular adenocarcinoma in the literature.

Study	# of cases	Stage	LVSI	+ LNs	Treatment	Outcome (at time of publication)
Lataifeh et al. 2013	11	IB1	–	1	RT + RH (6), RH (1), RH > RT (1), RTR (3),	One pt with + LNs got RT, now NED, 10 NED
	8	IB2	–	0		1 recurrence, 7 NED
Korach et al. 2009	3	IA1	–	–	CKC (2), TAH (1)	NED
	5	IB1	–	–	RH (3), TAH (2)	1 DOD in RH group, otherwise NED
Utsugi et al. 2004	10	IB1	2	0	RH (10)	NED
Jones et al. 1993	24	IB1	0	0	RH (15), TAH + RT (4), CKC (5)	NED

(CKC = cold knife conization, RH = radical hysterectomy (with lymph node dissection), RTR = radical trachelectomy, RT = radiation therapy, TAH/BSO = simple total abdominal hysterectomy, DOD = died of disease).

importance if more conservative therapy is to be employed. Full biopsies of the entire lesion are necessary for diagnosis (Korach et al., 2009). Thoughtful pre-treatment counseling and close long-term follow-up is essential in management of this rare tumor type.

Conflict of interest statement

The authors have no conflict of interest.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

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