

Use of Arabin pessary to prevent preterm birth in pregnancy complicated by short cervix, post cervical conization for cervical adenocarcinoma with residual disease: A Case Report and Literature Review.



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Background

Cervical cancer in pregnancy is likely to increase risk for preterm birth (PTB). PTB risk is increased by 5-fold after a single cone biopsy and 10-fold after two cone biopsies[1].

The ideal intervention to prevent preterm births in women with cervical insufficiency resulting from conization is not known. Management options in a pregnancy with short cervix after conization and inadequate oncological margins is highlighted in our case.

Case Presentation

A 37-year-old para 4 woman, was diagnosed with stage 1A2 adenocarcinoma of cervix, with no lymphovascular space invasion. Radical hysterectomy with pelvic lymphadenectomy was recommended. The woman became pregnant while awaiting surgery. She elected to continue the pregnancy and delay invasive procedures and definitive treatment until postpartum.

Antenatal care was conducted through the high-risk obstetrics clinic. Cervical length (CL) screening was initiated as there were multiple risk factors for preterm birth (PTB), including a history of PTB at 36 weeks in her third pregnancy, cervical conization and possible residual cervical cancer. At 12 weeks, CL was 28mm, thus vaginal Progesterone was commenced. Unfortunately, she had progressive cervical shortening, by 18 weeks CL had reduced to 18mm. Cerclage was decided against as it carried the risk of bleeding with cervical vascularity demonstrated on ultrasound. The cervical pessary was preferred as it would not disrupt the underlying tissue.

An Arabin pessary was inserted at 18 weeks. The pregnancy continued with CL maintained at 18mm with pessary in-situ and ongoing vaginal progesterone.

The woman presented with preterm premature rupture of membranes at 34+1 weeks gestation. The Arabin pessary was removed (105 days from insertion), and Progesterone ceased. A live infant was delivered via LSCS.

Repeat PET post-partum revealed stable disease. A radical hysterectomy and pelvic lymphadenectomy with ovarian preservation was performed 10 weeks post-partum. Histopathology showed cervical fibrosis with no residual malignancy.

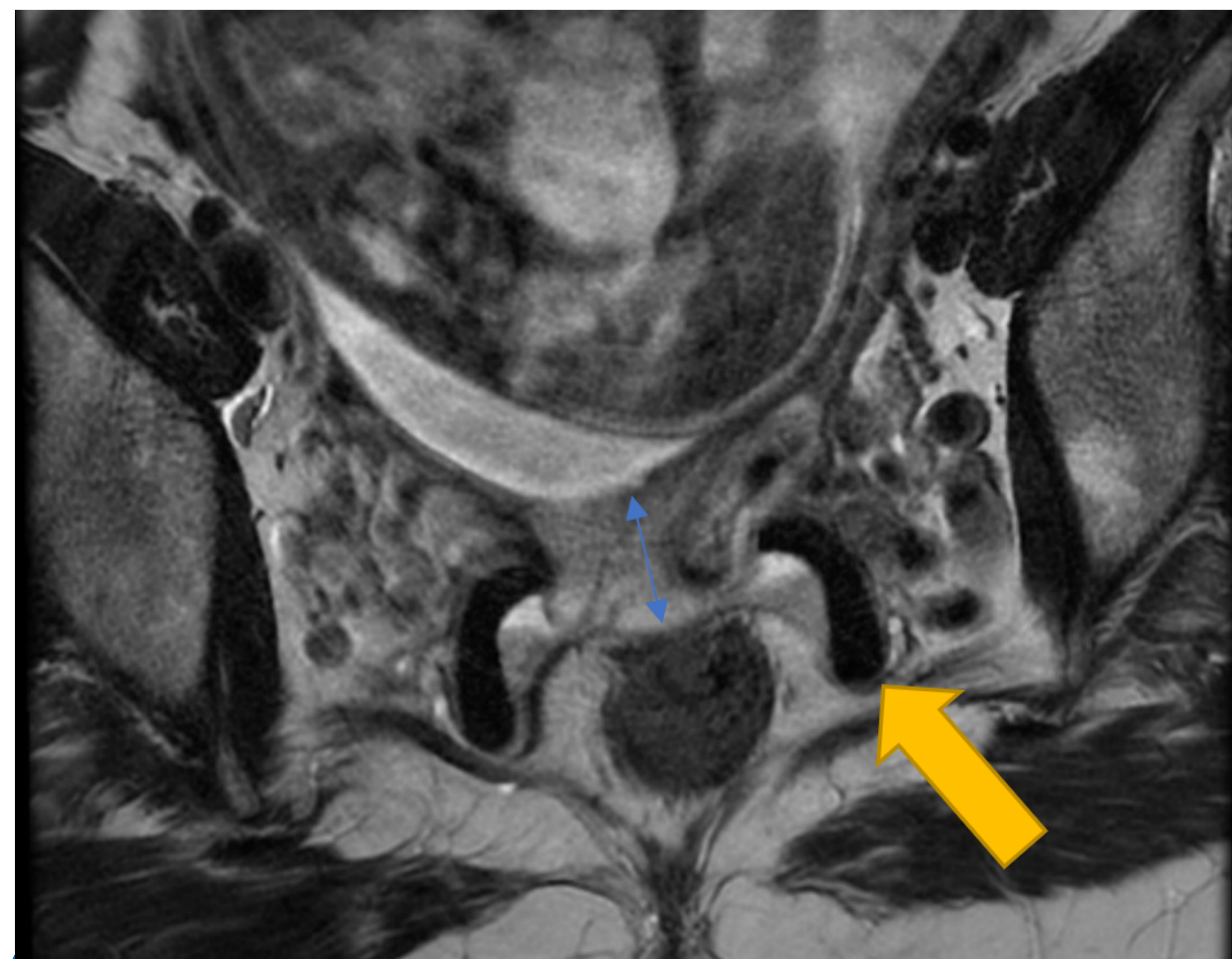


Figure 1: MRI image at 29 weeks gestation due to concerns of disease progression. The cervix (blue arrow) is short, oedematous, but no definitive parametrial invasion or pelvic lymphadenopathy. Arabin pessary (yellow arrow), obscures half of the vagina and cervix.

Discussion & Conclusion

For stage 1A2 disease, the standard treatment is radical hysterectomy and bilateral pelvic lymphadenectomy[2]. If fertility is desired, conization is considered sufficient if able to obtain negative margins. If pregnancy continuation is desired, surveillance should include regular examination, sentinel node procedure to assess nodal status at 12-14 weeks gestation, and MRI if concerned regarding disease progression.

Short cervix is a strong risk factor for PTB. Vaginal Progesterone is known to reduce risk of PTB (relative risk 0.66)[3], however a recent meta-analysis concluded there was no convincing evidence in women with a history of PTB[4]. RCOG does not recommend cerclage in women who have had a previous cone biopsy[5].

Arabin pessary is known to reduce risk for PTB in women with short cervix. Previous studies have demonstrated effectiveness of combination of pessary and vaginal progesterone, compared to progesterone alone[6,7]. A common side effect is increased vaginal discharge. High degree of suspicion should be maintained to exclude infection and progression of cancer. Removal of the pessary followed by replacement did not seem to have negative effects on efficacy of the device in our case.

Route of delivery likely does not affect prognosis of Stage 1 cervical cancer[8], a Caesarean-section should be offered for obstetric indications only.

In conclusion, cervical pessary may be safe and effective in preventing preterm birth in a pregnancy with possible residual cervical cancer and short cervix.

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