



Atypical Placental Site Nodule- Benign or malignant?

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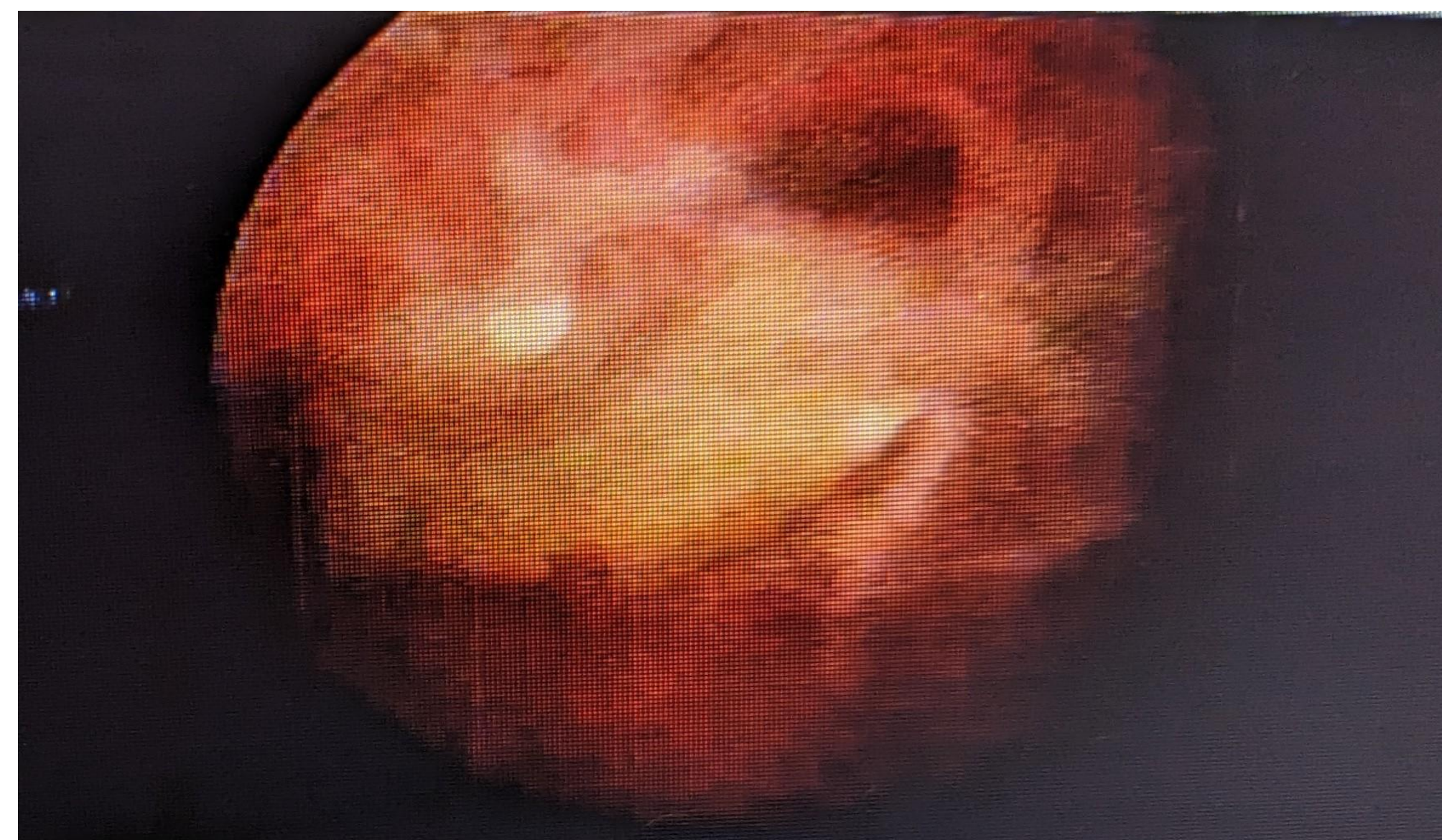
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Introduction

- Placental site nodule (PSN) is a benign proliferation of intermediate trophoblast cell in endometrium or endocervix after intrauterine gestation.
- Atypical nodules have the potential to progress to Placental site trophoblastic tumour (PSTT) or epithelioid trophoblastic tumour (ETT). PSN, APSN and ETT are described as a spectrum with progressively increasing malignant potential.
- It needs follow up as it is a rare diagnosis with limited clinical experience and management guidance.

Objective and design

- In our unit, 3 cases of atypical placental site nodules were histologically diagnosed in 12 months.
- Each had a different presentation, follow-up plan and management although similar histopathological results, leading to literature review.



Tan yellow nodule seen on hysteroscopy

References

1. Young et al, Nov 1990, AJSP, doi: 10.1097/00000478-199011000-00002. PMID: 2240354.
2. Kaur et al, March 2015, IJGP, doi: 10.1097/PGP.0000000000000128
3. Le-ming et al Human Pathology, Volume 30, Issue 6, 1999, ISSN 0046-8177, [https://doi.org/10.1016/S0046-8177\(99\)90095-3](https://doi.org/10.1016/S0046-8177(99)90095-3).

Case 1

- 41 year old attended with irregular periods.
- Miscarriage at 16 weeks 6 moths before symptoms.
- Hysteroscopic evaluation showed retained products of conception (RPOC) like product at fundus.
- Reported by histopathology as borderline APSN with mild to moderate atypia with Ki67 of 5%.
- Serial HCG follow-up was agreed as management and have been in normal range.

Case 2

- 31 year old presented with ongoing bleeding for 2 months following
- mid-trimester miscarriage.
- Previous 1 Caesarean section.
- Hysteroscopic removal of RPOC was done.
- Reported as APSN with high proliferative index with Ki67 of 30%.
- Hysterectomy was recommended, however she declined and has successfully carried a pregnancy to term without complications.

Case 3

- 18 year old on medroxyprogesterone injections and amenorrhoeic, presented with pelvic pain.
- Surgical termination of pregnancy in past.
- During evaluation, fluid filled area at fundus was recognised at fundus which was biopsied under hysteroscopic guidance.
- Histopatholgy report was APSN with low proliferative index and Ki67 of 10% and hence follow up with HCG was commenced and have all been normal till date.

Discussion

Presentation

- Reproductive age women may present with menorrhagia, irregular cycles, dysmenorrhoea, recurrent miscarriage, subfertility, post-coital bleeding, or abnormal cervical smear. ¹
- Surgical procedures on the uterus are believed to interfere with normal endometrial shedding and can lead to abnormal involution of placental tissue.

Diagnosis

- Hysteroscopic appearance is of yellow or tan nodule on endometrium.
- Microscopically it is described as well defined hyalinised eosinophilic nodules with intermediate trophoblast.
- Ki-67 can be 5-10% in atypical placental site nodules (<5% in PSN).

Follow up and prognosis

- HCG
- CT and/or MRI to rule out metastasis.
- Under the care of a regional Trophoblastic Diseases Centre (within the UK).
- 14% of APSN are shown to progress to ETT or PSTT. ²

Conclusion

- With increasing evidence of APSN progressing to ETT/PSTT regular follow up is mandatory.
- Lack of markers of progressive change into malignancy is a limiting factor.
- Individualised care based on age, fertility, patient choice and pathology and immunohistochemistry should be practiced.