

Placental Site Nodule – Case Report and Literature Review

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Objective

We report a rare placental site nodule (PSN) in a nulliparous 35-year-old woman with recurrent miscarriages, and no other risk factors for infertility.



Figure 1: Hysterectomy specimen, myometrium showing multiple brown lesions (placental site nodules). [1]

Case Report

A 35-year-old nulliparous woman with normal body mass index, presents to recurrent miscarriage clinic. She reports regular menstrual cycles, normal cervical smears and no history of sexually transmitted infections. Her first pregnancy was a missed miscarriage at 7 weeks, managed medically. Her second miscarriage was at 11 weeks, where she had an evacuation of retained products of conception (ERPC). Her third miscarriage was managed conservatively at 4 weeks gestation. Patient and partner were subsequently referred to recurrent miscarriage clinic. Transvaginal ultrasound, hormonal profiles, antibody testing and semen analysis were unremarkable. Her fourth miscarriage was incomplete and managed by ERPC. She presented three months later with intermittent vaginal bleeding affecting her quality of life. A repeat transvaginal ultrasound showed a 1.5cm isoechoic lesion in the fundus. Hysteroscopy showed multiple yellow nodules measuring 2mm in the endometrium. Histology confirmed PSN with no atypical features. She was advised for hysteroscopic resection of nodules. Whilst awaiting treatment, she had a fifth miscarriage for which she had ERPC and was advised to use contraception until treatment.

Discussion

PSN is a rare benign lesion of implantation type intermediate trophoblasts thought to arise from abnormal involution of the placental site [2]. They can present as a single or multiple lesions, and are associated with abnormal vaginal or postcoital bleeding and potentially recurrent miscarriages and infertility [2]. When grossly evident, they can be seen as yellow or brown lesions (Figure 1). However, they are usually microscopic; and histology shows epithelioid cells in a hyalinised stroma (Figure 2).

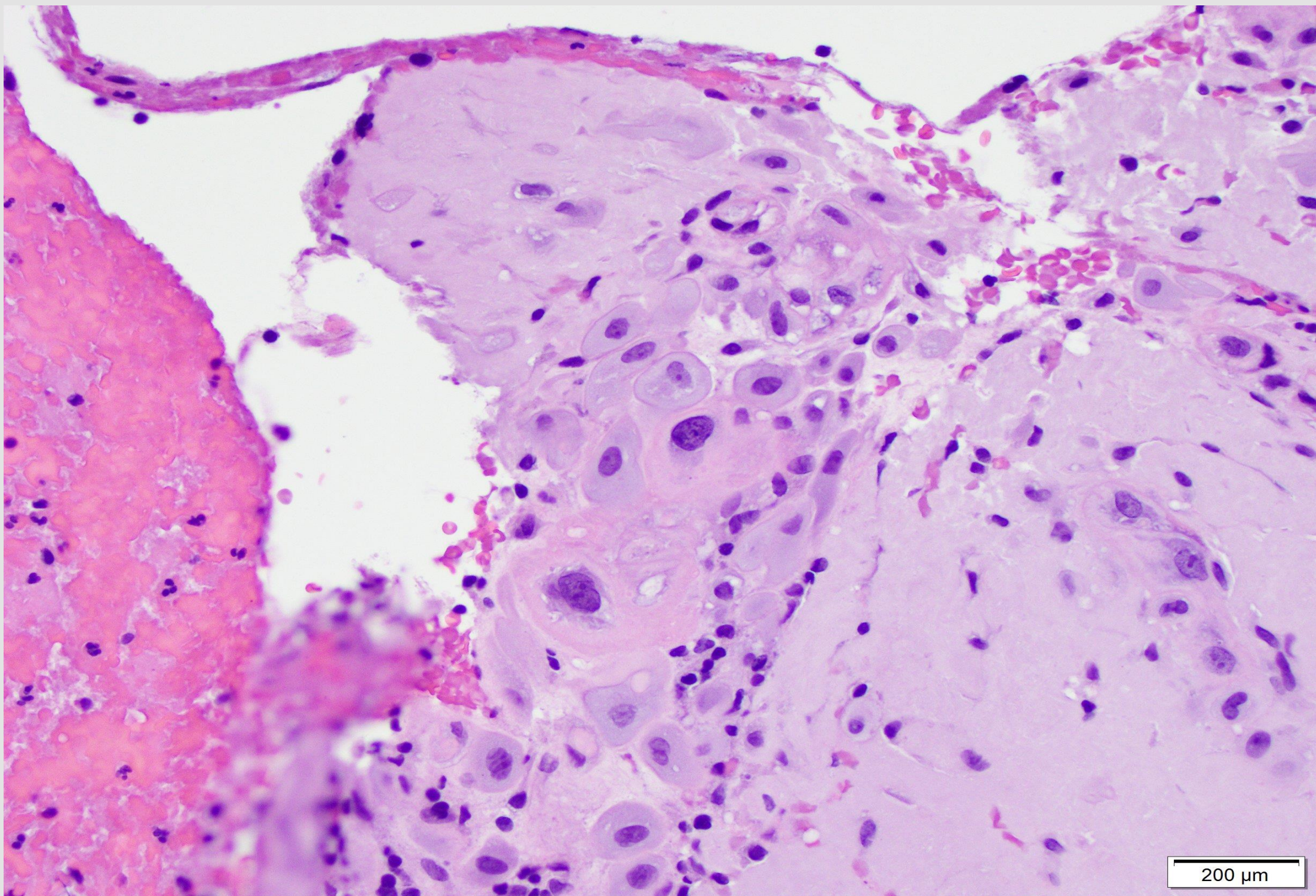


Figure 2: Histology show chorionic type intermediate trophoblast cells with nuclei of various size. Eosinophilic hyalinized stroma seen within the larger trophoblast cells [2].

Only 20 cases of uterine PSN have been reported in literature, with extrauterine, atypical and malignant cases excluded; we are the first to demonstrate a possible association with recurrent miscarriages. A previous report demonstrated PSN in a patient with secondary infertility who had undergone a hysteroscopy and dilatation and curettage prior to her only pregnancy [3]. Between 47% to 82% of patients PSN had undergone uterine surgical procedures such as a dilatation and curettage or caesarean section for a previous pregnancy [4, 5]. Some studies have reported PSN association with epithelioid trophoblastic and placental site trophoblastic tumours hence patient-centred management should consider age, parity and desire for fertility [2]. Clinicians should also consider its diagnosis in abnormal vaginal bleeding following uterine surgical procedures for a previous pregnancy [6].

Conclusion

The relationship between PSN and infertility is still unknown. PSN is rare, and should be considered in patients presenting with infertility, recurrent miscarriages or abnormal vaginal bleeding. A higher suspicion should be made in patients with a history of uterine surgical procedures. We suspect that PSN results in abnormal implantation, thus affecting the development of the pregnancy within the uterus. Further studies should be performed to understand such relationship, its development and progression as early diagnosis could lead to earlier treatment, and improved quality of life for these women.

References

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