The placental site nodule and its differential diagnosis: 2 case reports and review of the literature.

Sabur ST, Davis G.
Department of Obstetrics and Gynecology
Northern Beaches Hospital, New South Wales, Australia.

The placental site nodule (PSN) and its neoplastic counterpart epitheloid trophoblastic tumour (ETT) are forms of non-molar gestational trophoblastic disease that are thought to arise from incomplete involution of the placenta, particularly in women with previous uterine surgery e.g. caesarean section (CS) or curettage. Presentation is varied and non-specific including abnormal uterine bleeding (AUB), amenorrhoea, infertility and incidental finding through abnormal cervical smear cytology.

As symptoms usually occur long after the last pregnancy, average latent phase 3-years², placental pathology is not usually considered. However, it is extremely important for clinicians to distinguish these lesions due to emerging evidence that PSNs may have potential to develop malignant transformation to ETTs.³⁻⁵

We report 2 cases of PSN illustrating an interesting spectrum of pathological diagnoses with differing natural histories and management.

Case 1:

- 29-year-old, G2P2: 2 vaginal deliveries
- AUB 4-years after last delivery, non-responsive to medical management
 - ultrasound normal
 - hysteroscopy normal, endometrial curettage: PSN
- Endometrial ablation performed due to ongoing AUB
 - endometrial biopsy pre-ablation: normal

Case 2:

- 39-year-old, G3P2: suction curettage for miscarriage, 2 CS
- Pelvic pain 6-months after first CS
 - ultrasound: possible retained products of conception
 - hysteroscopy: scant material, curetting: PSN
 - symptoms resolved
- AUB 1 year following second CS
 - ultrasound normal
 - hysteroscopy normal, endometrial curettage: PSN, differential diagnosis ETT.
- Gyne-oncology review: hysterectomy performed.

These cases demonstrate the highly variable presentations of PSN. Diagnosis should alert practitioners to arrange ongoing follow-up, given the potential to develop ETT.

Word count: 249

References:

- 1. Pramanick A, Hwang WS, Mathur M. "Placental site nodule (PSN): an uncommon diagnosis with a common presentation." *BMJ Case Rep.* 2014 Apr 2;2014. pii: bcr2013203086. doi: 10.1136/bcr-2013-203086.
- 2. Young RH, Kurman RJ, Scully RE. "Placental site nodules and plaques: A clinicopathologic analysis of 20 cases." *Am J Surg Pathol* 1990;4:1001-9
- 3. Pei H. "Gestational Trophoblastic Tumors: A Timely Review of Diagnostic Pathology." *Archives of Pathology & Laboratory Medicine*: January 2019, Vol. 143, No. 1, pp. 65-74. https://doi.org/10.5858/arpa.2018-0234-RA
- 4. Chen BJ, Cheng CJ, Chen WY. "Transformation of a post-cesarean section placental site nodule into a coexisting epithelioid trophoblastic tumor and placental site trophoblastic tumor: a case report." *Diagn Pathol* 2013;8:85.
- 5. McCarthy WA, Paquette C, Colavita M, et al. "Atypical Placental Site Nodule Arising in a Postcesarean Section Scar: Case Report and Review of the Literature." *Int J Gynecol Pathol.* 2019 Jan;38(1):71-75. doi: 10.1097/PGP.00000000000000468.

Presenting author information:

Full name: Samara Tahreen Sabur Email: samara.sabur@gmail.com
Contact number: +61403999140
Department of obstetrics and gynecology Northern Beaches Hospital 105 Frenchs Forest Rd West, Frenchs Forest, NSW, 2086, Australia. Category: poster presentation



Biography:

Samara Sabur is a junior medical doctor, training in obstetrics and gynecology at the Northern Beaches Hospital in Sydney, Australia. She is currently completing a Master of Public Health through the University of Sydney and is an associate lecturer at the School of Medicine in University of Western Sydney. She has previously presented research at the European Congress of Obstetrics and Gynecology as well as the Australasian Gynecological and Endoscopy Society annual scientific meeting.