

## CASE REPORT

# Nasal Metastasis of Placental Site Trophoblastic Tumor: A Rare Case

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## ABSTRACT

**Aim:** To present a rare case of placental site trophoblastic tumor (PSTT) metastasis to nasal septum.

**Study design:** Case report.

**Setting:** A tertiary care referral hospital.

**Case report:** A 32-year-old lady multigravida presented with history of intermittent, spontaneous nasal bleeding for 3 days and who had underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy for PSST.

**Results:** Complete excisional biopsy of the left nasal septal mass was performed and sent for the histopathological examination. Grossly, the mass was fleshy, reddish in color, and about 2 × 3 cm in size. Microscopically, there was infiltration of nasal mucosa with the intermediate type trophoblastic cells. After excision of left nasal septal mass, she underwent adjuvant chemoradiation of five cycles and she is in remission phase now.

**Conclusion:** Metastasis of PSST to nasal mucosa is very rare showing placental site trophoblastic cells within nasal mucosa. Though it is rare disease, we have to keep it in differential diagnosis of nasal bleeding.

**Keywords:** Metastasis, Nasal bleeding, Placental site trophoblastic tumor.

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**Conflict of interest:** None

## INTRODUCTION

Gestational trophoblastic disease refers to a spectrum of pregnancy-related placental tumors divided as molar and nonmolar tumors (gestational trophoblastic neoplasia),

including invasive mole, choriocarcinoma, PSTT, and epitheloid trophoblastic tumor.<sup>1</sup>

Placental site trophoblastic tumor is a rare form of gestational trophoblastic disease that mainly arises from the invasive intermediate gestational trophoblasts which constitutes 1 to 2% of all gestational trophoblastic neoplasia.<sup>2</sup> Metastasis may occurs in the vagina, extra-uterine pelvic tissues, retroperitoneum, lymph nodes, lungs, and brain.<sup>3</sup> But metastasis in nasal mucosa is very rare.

Unlike other gestational trophoblastic disease, it is less chemosensitive and also produces less beta-human chorionic gonadotropin (hCG), so surgery is the mainstay of treatment. In case of metastasis, large tumor size, and high mitotic figure, adjuvant chemotherapy is given.<sup>4,5</sup> In this case report, we present a metastasis of PSTT in nasal septal mucosa managed with surgery and adjuvant chemotherapy.

## CASE REPORT

### History

A 32-year-old female multigravida presented to Otorhinolaryngology Department of Kathmandu University Hospital, Dhulikhel Hospital, Kavre, Nepal, with history of intermittent, spontaneous nasal bleeding for 3 days. On anterior rhinoscopy examination, there was a friable mass within the left nasal cavity, which bled on touch. There were no neck nodes. We did the diagnostic nasal endoscopy which showed friable, fleshy mass arising from the middle third of the left nasal septum. The lateral wall of the left nasal cavity and the right nasal cavity was completely free.

### Investigation

Computed tomography scan of brain was normal, chest X-ray showed canon ball appearance. We did complete excisional biopsy of the left nasal septal mass and sent it for histopathological examination. Grossly, the mass was fleshy, reddish in color, and was about 2 × 3 cm in size. Microscopically, there was infiltration of nasal mucosa with the intermediate type trophoblastic cells (Fig. 1). On taking the gynecological history, she underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy for PSTT (Fig. 2). Microscopically, there

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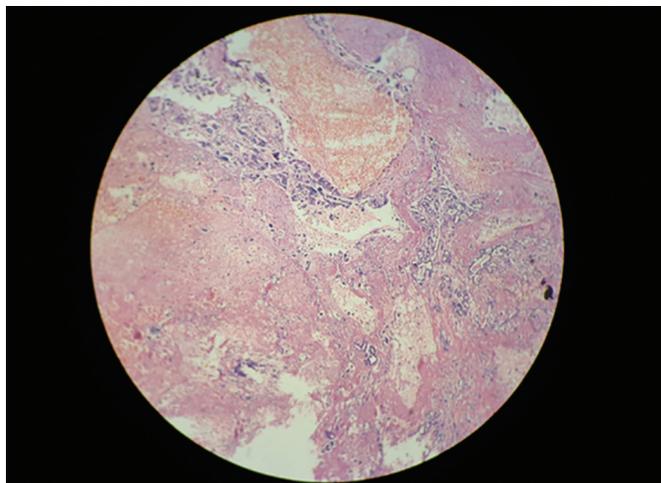


Fig. 1: Nasal metastasis of PSTT



Fig. 2: Perforation in the right posteroinferior surface of uterus by PSTT

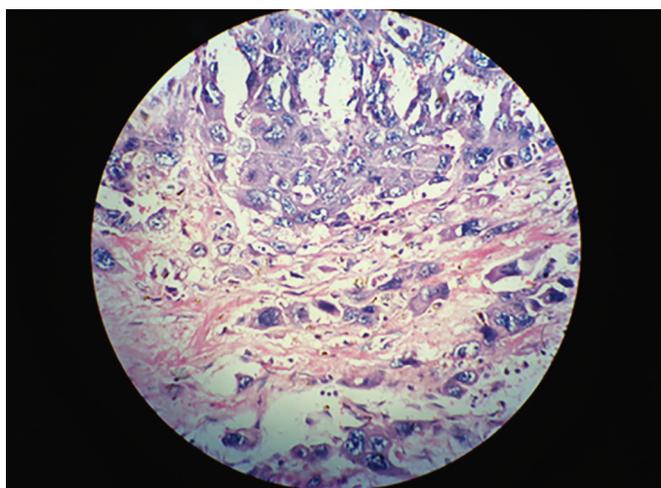


Fig. 3: Placental site trophoblastic tumor

was infiltration with the intermediate-type trophoblastic cells (Fig. 3). After excision of left nasal septal mass, she underwent adjuvant chemoradiation of five cycles and she is in remission phase now.

## DISCUSSION

Placental site trophoblastic tumor is an intermediate trophoblastic tumor. They constitute 1% of trophoblastic disease.<sup>6</sup> It can occur after any type of gestation and the duration from the preceding conception is also variable.

Most patients present with history of abnormal uterine bleeding per vaginam with variable period of amenorrhea and also metastases to different organs. Other spectrum of presentation could be nephrotic syndrome, virilism, galactorrhea, polycythemia, and cutaneous metastasis,<sup>2</sup> but metastasis to nasal mucosa is quite rare.

Placental site trophoblastic tumor showed a pattern of vascular invasion, characterized by migration of

neoplastic cells through and replacing vessel walls, while maintaining the overall vascular structure. The tumors are composed of mainly intermediate trophoblast derived from cytotrophoblast, so produce little beta-hCG.<sup>3</sup>

The biological behavior of PSTT is variable and unpredictable, so it does not fit into the well-defined prognostic category. Hence, either in case of locally invasive disease or metastatic disease, the mode of treatment is surgery if the tumor is resectable.<sup>2,5,7</sup> After surgery, adjuvant chemotherapy is given depending on the condition.

Like in our case, the metastasis to nasal mucosa is very rare. Though the metastasis of choriocarcinoma to nasal mucosa is reported in two cases,<sup>8,9</sup> the metastasis of PSTT to nasal mucosa is not reported till date. This is the first case report.

## CONCLUSION

Metastasis of PSTT to nasal mucosa is very rare showing placental site trophoblastic cells within nasal mucosa. We report a case of a 32-year-old multigravida female with PSTT in uterus and nasal mucosa who was treated with surgical excision of both site tumor and adjuvant chemotherapy.

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