

# Non-Gestational (Pulmonary) Choriocarcinoma: A rare case report

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## Introduction

- highly aggressive germ cell neoplasm
- Most cases occur in the female genital tract after a gestational event
- Non-gestational choriocarcinomas (NGC) are very rare malignant tumors that can originate from the ovary, testis, lungs, and pineal gland
- Primary choriocarcinoma of the lung is extremely rare and fewer than 30 cases have been reported to date.

## Objective

We report a rare case of primary pulmonary choriocarcinoma of the lung that occurred 12 years after the last known normal pregnancy.

## Case

- 36-year-old P2+1 ,smoker, had an incidental finding of positive urine pregnancy
- last pregnancy around 12 years back and strongly denied any sexual activity
- After 6 months of persistently positive  $\beta$ - HCG patient suddenly developed shortness of breath
- chest X-ray: mediastinal mass
- diagnosis of Pulmonary Choriocarcinoma made at trophoblastic disease center
- patient received Etoposide and cisplatin (EP) followed by PAC-E, PAC-PLAT, and PEMBRO regimens
- Unfortunately, the patient succumbed to death after 6 months of treatment

## Discussion

- NGC occurs in children and young adults in some midline structures such as gonads, mediastinum, retroperitoneum, intracranium (pineal gland, pituitary gland), liver, bladder, stomach, colon, and lung
- retained primordial germ cells may migrate abnormally during embryonic development.
- Primary pulmonary choriocarcinoma are unresponsive to surgical and chemotherapeutic treatment and are thought to carry a poor prognosis (with 5-year survival being under 5%).

## Conclusion

- absence of pregnancy of known location and the moderately elevated  $\beta$ -hCG should raise the suspicion of non-gestational choriocarcinoma
- Workup with imaging, histopathology and immunohistochemistry is strongly advised for accurate diagnosis of the condition
- Primary pulmonary choriocarcinoma must be considered as one of the differential diagnoses in women with respiratory symptoms and increased serum beta-HCG
- there are no standardized therapeutic guidelines for treatment