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Abbreviated Key Title: Sch J Med Case Rep ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online) Journal homepage: https://saspublishers.com

Gastroenterology

# **Portal Vein Thrombosis Revealing Lung Cancer**

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**DOI:** 10.36347/sjmcr.2022.v10i12.022 | **Received:** 01.11.2022 | **Accepted:** 13.12.2022 | **Published:** 22.12.2022

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Abstract Case Report

Thromboembolic disease can be indicative of cancer. The etiologies of portal thrombosis are dominated by locals causes [2]. The presence of tumor portal thrombosis associated with extraabdominal neoplasia is rare [10] and we report here a new observation in a patient consultant for diffuse abdominal pain with portal thrombosis revealing lung cancer.

**Keywords**: Portal thrombosis, lung cancer.

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### Introduction

The association of neoplastic diseases with venous thrombosis is more frequent and better known than with arterial thrombosis.

We report one case of primary bronchial cancer revealed by portal thrombosis. This observation is an opportunity to discuss the diagnostic and therapeutic implications of the links between portal thrombosis and cancers.

## **OBSERVATION**

A 50-year-old man operated for hemorrhoidal thrombosis 20 years ago, active smoking at 40 PA.

There is no personal or family history of thrombophilia. The reason for consultation was diffuse abdominal pain.

Abdominal ultrasound objectified splenomegaly with portal trunk dilated 14 mm site of Doppler thrombosis (Figure 1).



Figure 1: Abdominal ultrasound objectified portal trunk dilated 14 mm site of Doppler thrombosis

The biological assessment with the assessment in search of thrombophilia (factors II and V, proteins C and S, antithrombin, resistance to activated protein C, homocysteinemia) finds no abnormality.

An X-ray and CT scan of the chest show a pulmonary tissue process at the level of the middle right lobe of 60 mm large diameter sheathing the scissures (Figure 2).

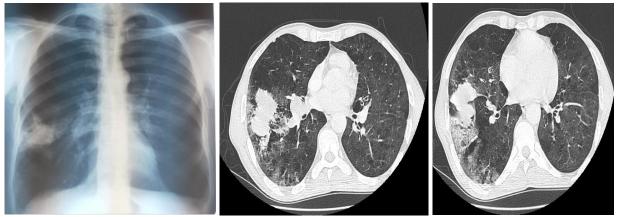


Figure 2: An X-ray and CT scan of the chest show a pulmonary tissue process

At the abdominal level the objective CT images a liver which is the site of disseminated nodules

and hypovascularization in connection with extensive thrombosis of portal branches (Figure 3).



Figure 3: CT images a liver which is the site of disseminated nodules and hypovascularization in connection with extensive thrombosis of portal branches

Bronchial fibroscopy showed no lesions on the entire bronchial tree. TCT biopsies reveal non-small

cell carcinoma (Figure 4). The classification is cT4N1M2.

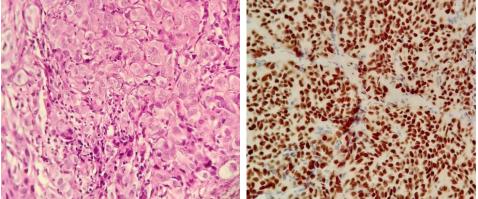


Figure 4: TCT biopsies reveal non-small cell carcinoma

Chemotherapy with cisplatin-vinrelbine is given. The course is characterized by massive and rapid tumor progression in the thoracic (respiratory failure severe) leading to the patient's death twelve months after the inaugural portal thrombosis.

#### **DISCUSSION**

Thromboembolic disease can be indicative of cancer, posing the problem of finding an occult cancer. Indeed, the discovery of cancer is more common in cases of idiopathic thrombosis than in the case of secondary thrombosis (37% versus 12%) [1].

The etiologies of portal thrombosis are dominated by cirrhosis; local causes and prothrombotic diseases; However, active neoplasia can be the cause, either by direct invasion, compression or paraneoplastic thrombus [2].

A thoraco-abdomino-pelvic CT scan seems to be the most contributory and cheapest examination in this context.

In our case, no radiological signs showed extrinsic compression, nor direct invasion of the portal vein or one of its branches.

Certains types of cancer are more commonly associated with VTE, such as lung cancer (12% to 16.4%) (especially adenocarcinomas) [3, 9].

But the coexistence of tumor portal thrombosis is quite common during hepatocellular carcinoma 5% of cases, by dissemination of this tumor in the liver [4, 5]. In cholangiocarcinoma, it is more often perivascular invasion than intraluminal thrombosis of the portal vein [6].

Other etiologies of tumor portal thrombosis are related to contiguous invasion of the portal system by cancer of the stomach and pancreas, most often without liver metastasis [7, 8].

The presence of tumor portal thrombosis associated with extraabdominal neoplasia is rare [10] and we report here a new observation.

## REFERENCES

- Bura, A., Cailleux, N., Bienvenu, B., Leger, P., Bissery, A., Boccalon, H., ... & Emmerich, J. (2004). Incidence and prognosis of cancer associated with bilateral venous thrombosis: a prospective study of 103 patients. *Journal of Thrombosis and Haemostasis*, 2(3), 441-444.
- Yamato, H., Kawakami, H., Kuwatani, M., Shinada, K., Kondo, S., Kubota, K., & Asaka, M. (2009). Pancreatic carcinoma associated with portal vein tumor thrombus: three case reports. *Internal Medicine*, 48(3), 143-150.
- 3. Sauve, C., Boffa, M. C., Meyer, G., & Farge-Bancel, D. (2000). Maladie thromboembolique veineuse et cancer. *La Revue de médecine interne*, 21(3), 266-277.
- 4. Makuuchi, M., Hasegawa, H., & Yamazaki, S. (1985). Ultrasonically guided subsegmentectomy. *Surgery, gynecology & obstetrics*, 161(4), 346-350.
- Regimbeau, J. M., Kianmanesh, R., Farges, O., Dondero, F., Sauvanet, A., & Belghiti, J. (2002). Extent of liver resection influences the outcome in patients with cirrhosis and small hepatocellular carcinoma. *Surgery*, 131(3), 311-317.
- Neuhaus, P., Jonas, S., Bechstein, W. O., Lohmann, R., Radke, C., Kling, N., ... & Hintze, R. (1999). Extended resections for hilar cholangiocarcinoma. *Annals of surgery*, 230(6), 808-818.
- 7. Sugawara, Y., Konishi, T., Hiraishi, M., Ishizaki, Y., & Makuuchi, M. (1996). Portal tumor thrombi due to gastric cancer. *Hepatogastroenterology*, 43(10), 1000-1005.
- 8. Ishida, H., Konno, K., Hamashima, Y., Naganuma, H., Komatsuda, T., Sato, M., ... & Watanabe, S. (1999). Portal tumor thrombus due to gastrointestinal cancer. *Abdominal imaging*, 24(6), 585-590.
- Carrier, M., Blais, N., & Crowther, M. Algorithme de traitement de la thrombose associée au cancer: consensus d'experts canadiens mis à jour, *Current Oncology*, 28(6), 5434–5451. Afficher sur: Site de 1'éditeur
- 10. Cohen, J., Edelman, R. R., & Chopra, S. (1992). Portal vein thrombosis: a review. *The American journal of medicine*, 92(2), 173-182.