

## Pancreatic Krukenberg Tumor of the Ovary: Case Report

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### Abstract

### Case Report

Krukenberg's tumors are rare malignant tumors of the ovary, often bilateral and secondary to cancer of the stomach, mucosal secreting in 90% of cases. We are reporting a case in our unit of a krukenberg with a primary pancreatic tumor. The diagnosis and management of krukenberg tumor is complex and should involve an interprofessional team that includes hospice, palliative care nurse, pain specialist, oncologist, surgeon, pathologist, and radiologist. In all cases, this is metastatic disease and the patients are frail and debilitated. Aggressive surgery is not recommended as it does not extend life span.

**Keywords:** Krukenberg, pancreas, metastasis.

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## INTRODUCTION

Krukenberg's tumors are rare malignant tumors of the ovary, often bilateral and secondary to cancer of the stomach, mucosal secreting in 90% of cases. We are reporting a case in our unit of a krukenberg with a primary pancreatic tumor to illustrate particularities of this entity et his ability to simulate primary mucinous ovarian carcinoma.

## PATIENT AND OBSERVATION

We report a case of a 59 years old women, admitted for management of a cholestatic jaundice evolving from a month and a half associated with epigastric transfixing pain and an alteration of the general state with weight loss of 13 kg in 9 months.

The biological assessment was without particularities at the time of admission. Abdominal computed tomography showed a process of the head of the pancreas associated with an ovarian mass.

MRI showed a diffuse swelling of the pancreatic gland associated with dilation of the main bile duct to 13cm and minor dilation of the intrahepatic bile ducts with the presence of a predominantly cystic pelvic mass measuring 16x17x9cm and presence of signs of peritoneal dissemination (Figure-1).

Echoendoscopy showed an ishtmocephalic pancreatic lesion of 24 mm, the biopsy returned in favor of a ductal adenocarcinoma.

RCP decision was to opérater the patient. Surgical exploration found peritoneal carcinosis and a solidocystic mass of the left ovary of 20cm of long axis. We decide to perform an anexectomy (Figure-2) and a palliative choledocoduodenal bypass the operating suites were simple anatomopathological examination was in favor of a well differentiated adenocarcinoma compatible with the pancreatic orogen known to the patient.

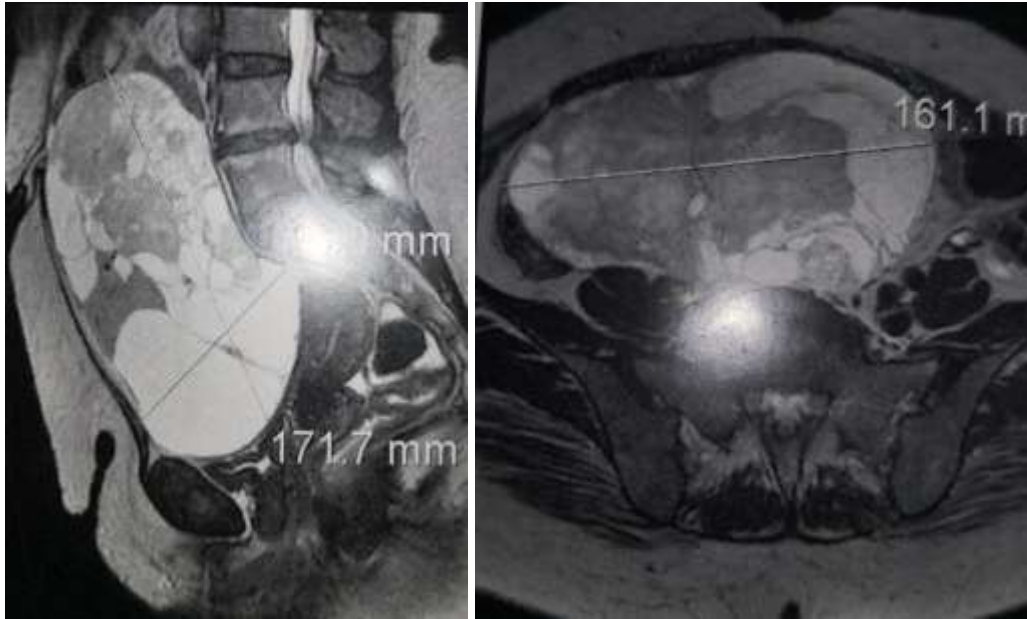


Fig-1: MRI showing lobulated masses with cystic and soft tissue components



Fig-2: Operative piece of ovariectomy

## DISCUSSION

Metastatic pancreaticobiliary tract adenocarcinomas in the ovary are notorious for their ability to simulate primary ovarian mucinous tumors [1]. This tumor is named after Friedrich Ernst Krukenberg (1871-1946), who reported a new type of ovarian malignancy in 1896. This was discovered to be metastatic in origin from primary gastrointestinal site 6 years later [2].

The average age of diagnosis is 45 years, symptoms are non specific: abdominal and pelvic pain, bloating, ascites or dyspareunia. These tumors can become autonomous and produce hormones leading to vaginal bleeding, menstrual cycle irregularities, hirsutism, or rarely virilization [3]. Pre-operative level for serum CA-125 can be elevated and decreases after tumor resection [3].

The current literature demonstrates that variability exists in the radiologic features of Krukenberg tumors. On CT and MRI, the tumors may appear complex, with both cystic and solid components and also range in size from 5 to 46 cm [4]. In some cases, Krukenberg tumors may appear radiologically similar to primary ovarian cancer, with CT findings of large, lobulated masses with cystic and soft tissue components [5]. US can also characterize Krukenberg tumors and possibly suggest a primary site. Testa et al. found that Krukenberg tumors from the stomach or breast were mostly solid, whereas those from the colon or biliary tract were multilocular [6].

No optimal treatment strategy for these tumors has been established. A retrospective analysis showed that patients who underwent palliative surgeries including unilateral or bilateral salpingo-oophorectomy alone, or a total hysterectomy combined with bilateral

salpingo-oophorectomy, had a median overall survival of 17 months [7].

Prognosis: Patients usually die in 2 years with a median survival of 14 months reported in the Literature [8].

From a pathologic perspective, mucinous tumors of the ovaries are challenging when it comes to determining primary versus metastatic lesions. literature review, show that immunohistochemical staining with MUC1 is the most helpful stain that could help differentiate mucinous carcinoma form pancreaticobiliary metastasis to the ovary from primary mucinous ovarian carcinoma [9].

## CONCLUSION

Metastatic mucinous carcinomas to the ovary mimic their primary mucinous ovarian counterparts and their clinical and histopathological features overlap in many ways. The diagnosis and management of krukensberg tumor is complex and should involve an interprofessional team that includes hospice, palliative care nurse, pain specialist, oncologist, surgeon, pathologist, and radiologist. In all cases, this is metastatic disease and the patients are frail and debilitated. Aggressive surgery is not recommended as it does not extend life span.

**Competing interests:** All authors declare no financial relationships or conflicts of interest

### Authors' contributions

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