

# Image-guided pancreatic biopsy; can we trust it as a diagnostic alternative?

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## INTRODUCTION

Most pancreatic adenocarcinomas are unresectable at the time of diagnosis,<sup>1</sup> or present image limitations in the case of non-adenocarcinomas,<sup>2</sup> thus posing a challenge for adequate histological sampling without the aid of laparoscopy. The American Joint Committee on Cancer considers the endoscopic ultrasound-guided diagnostic puncture as a procedure of choice.<sup>3</sup> In recent years, with advances in imaging methods, computed tomography (CT) and percutaneous ultrasound have become a diagnostic alternative in case of failure diagnosis, with the possibility of collecting histological fragments.<sup>4-8</sup>

## METHOD

Retrospective cohort analysis of hospital records of patients undergoing ultrasound-guided percutaneous biopsy and/or CT scan based on positive or negative histological findings in patients undergoing the percutaneous technique as first alternative or after failure of an endoscopic technique. We used the same pathology laboratories for the analysis of our histological fragments.

## RESULTS

Fifty-five image-guided percutaneous biopsies were included, 11 of which had undergone prior endoscopic

attempt with negative results. The average age was 62 years; 25 patients were male and 30 female. The mean size of the lesion was 4.75 cm, with 55% in the head and 45% in the body/tail of the pancreas. Positive results were possible in 85% of the cases, with 36 adenocarcinomas; three B-cell lymphomas and four metastases (two gastrointestinal tract, one renal, one pulmonary); one epithelial microcystic lesion; two neuroendocrine tumors; and one chronic pancreatitis. Of the 11 cases of prior negative biopsy by endoscopy, we were able to reach a diagnosis in 72%, with seven adenocarcinomas and one epithelial microcystic lesion. All results were obtained with only a minor complication characterized by a self-limited perihepatic hematoma. There was no tumor dissemination in the puncture needle path (Table 1).

## CONCLUSION

In cases of negative endoscopic biopsies of pancreatic lesions, the ultrasound-guided percutaneous and/or CT method can be an effective and safe alternative for histological diagnosis.

**Keywords:** cancer, biopsy, CT-guided biopsy, pancreatic tumor.

**TABLE 1** Positive results of image-guided percutaneous biopsies of pancreatic lesions.

Results	Number of patients
Adenocarcinoma	36
Lymphoma	3
Metastasis*	4
Epithelial microcystic lesion	1
Neuroendocrine	2
Chronic pancreatitis	1
Total	47

\*Two gastrointestinal tract; one renal; and one small cell lung carcinoma.

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