

Shall we Sample Every Pancreatic Mass?

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Short Communication

Sampling every pancreatic mass is debated but most observers believe that it should be mandatory for several reasons. Even if the vast majority of pancreatic masses consist of adenocarcinoma, 15% of them are of other origin and require their own specific therapy. Moreover, the progressive implementation of personalized medicine will allow offering the best therapeutic approach to any patient. Indeed, sampling any pancreatic mass can help determine the whole nature of the tumor (genomics, proteomics, and metabolomics) and thus permit to give the appropriate therapy only to patients that will certainly benefit from it.

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Dramatic improvement in clinical medicine is for tomorrow. Indeed, we are close to manage each and every patient following new coming philosophy: personalized medicine [1,2]. In this new setting, we should offer the best therapeutic approach to any patient [3]. The main idea behind this new concept consists of giving only therapy that patients will benefit from. We are therefore able to anticipate the therapy we choose to be reasonably effective in a certain way because we know, before starting any treatment that patient tumor will be sensitive to the chemotherapy. Genotyping every tumor or even every diseased tissue will permit this big step forwards. Moreover, we will simply avoid administrating therapy with no expected benefit and can spare adverse events that sometimes alter durably quality of life and even induce lethality in the worst cases [4].

Having said this, we should discuss the means to reach this new philosophy that unfortunately carries some cost for the patients. In fact, one of the means still remains access to tissue sampling and sample. Modern medicine is naively anticipated to improve quality of life (and longevity) of human being without inducing suffering during the investigation phase of any disease. It could presumably be achieved either by using « remote » clinical tools (remote sensing) or analyzing naturally occurring human products such as saliva, air breath, urine and stools [5].

We still do need tissue analysis/genotyping to reach this new philosophy. Most observers still believe that fine needle aspiration (FNA) is mandatory in patients presenting with pancreatic masses. Figure 1 illustrates the case of a suspected adenocarcinoma of the pancreatic head as depicted by CT scan imaging. However, endoscopic ultrasonography coupled with elastometry identified a pancreatic mass characterized by high strain ratio that favored hard tumor such as neuroendocrine tumor. Of note serum chromogranin A levels and CA19-9 were within normal range. Fine needle aspiration finally identified a well differentiated neuroendocrine tumor instead of the presumed adenocarcinoma. Therapy was of course adapted to the final diagnosis.

There is currently some tendency against performing FNA of pancreatic masses mostly occurring in international scientific meeting. A substantial and increasing number of pancreatic surgeons can live without FNA before planning surgery. Although it is true that the vast majority of these masses consist of adenocarcinoma, we need to keep in mind that 15% of them are of different origin. For example,

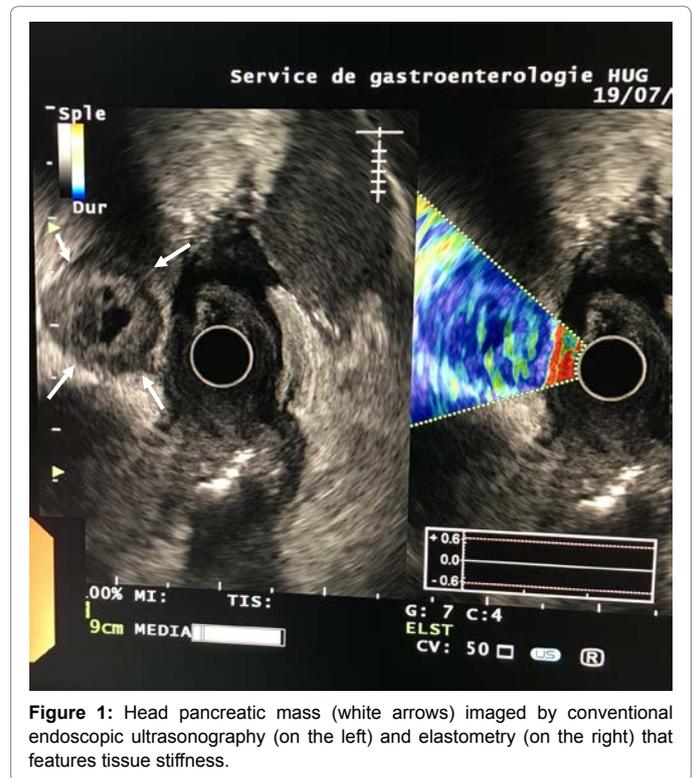


Figure 1: Head pancreatic mass (white arrows) imaged by conventional endoscopic ultrasonography (on the left) and elastometry (on the right) that features tissue stiffness.

autoimmune pancreatitis typically presents with pancreatic mass and concomitant jaundice and does not need any recourse to surgery but to steroids.

Knowing the complete tumor nature before any invasive therapy will permit and determine a better personalized therapy. Based on tumor genotyping analysis, neo adjuvant chemotherapy could be proposed in patients with locally advanced disease before pancreatectomy because of anticipated tumor shrinkage [6]. On the opposite, some patients will not voluntarily be offered chemotherapy because their tumor will not respond to any therapy. It is therefore time to ask for a mandatory FNA when facing new pancreatic mass, everywhere and every time.

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