

Case Report

Intraductal Papillary and Mucinous Tumor of Pancreas: "Skip Lesions" Major Pitfall in Frozen Section

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Abstract: The pre-cancerous nature of IPMT lesions and the good results published after resection justify, for the vast majority of authors, their complete resection. To perform a complete excision of the dysplastic epithelium, successive pancreatic cuttings are sometimes necessary, with iterative frozen section examinations; we expose this case to show the role of pathologist to guide the surgical management in this entity.

Keywords: IPMT, Pancreas, Frozen Section, Skip lesions.

INTRODUCTION

Cystic tumors of the pancreas are relatively rare, including 10% pancreatic cysts and only 1% of pancreatic cancers. Among these tumors are intraductal papillary and mucinous tumor of pancreas (IPMT). Improved and widespread use of modern imaging equipment and increased physician awareness contribute to the increasing impact of IPMT s.

The majority of IPMT s are located in the head of the pancreas (75%), while the rest are in the body / tail regions. Multifocal neoplasia has been advanced, but the true prevalence of multifocality is unknown.

Case Report

Here, we present the case of a 65-year-old man, data from CT and echo endoscopy strongly suggests a IPMT.

To avoid the disabling functional sequelae of total pancreatectomy (insulinoprive diabetes very difficult to balance), a limited pancreatic resection is generally proposed, the type of which is guided a priori by the preoperative morphological assessment data. In our case the tumor was cephalic and corporeal. This action remains conditioned by the need to have a margin of safety excision and the absence of dysplastic lesions on the remaining pancreas hence the interest of the frozen section. The section slice was previously unscathed, however, being aware of the diagnostic pitfalls, the pathologist noted the dilation of the wirsung canal, he requested a second cut. The discovery of high grade dysplastic lesions on the main canal led to a total pancreatectomy

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Examination of the operative part confirms the presence of high grade dysplasia lesions on the codal part. Unfortunately the patient died postoperatively due to complications of the glycemic imbalance.

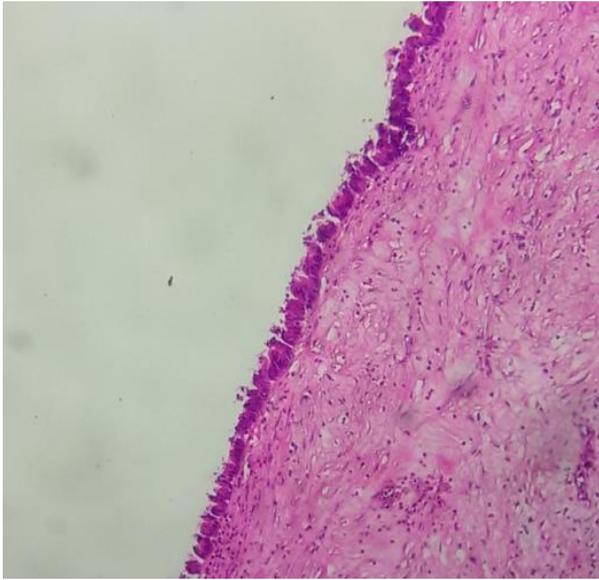


Figure 1: Frozen section 1 (after fixation) HEX10

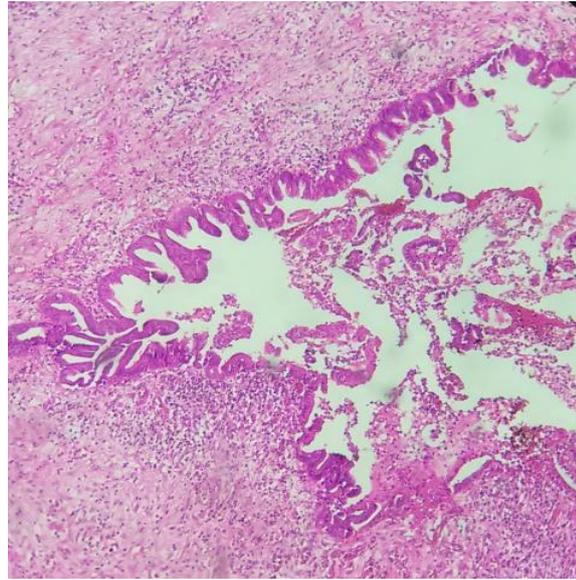


Figure 2: Frozen section 1 (after fixation) HEX10



Figure 3: macroscopic apparence of resection specimen

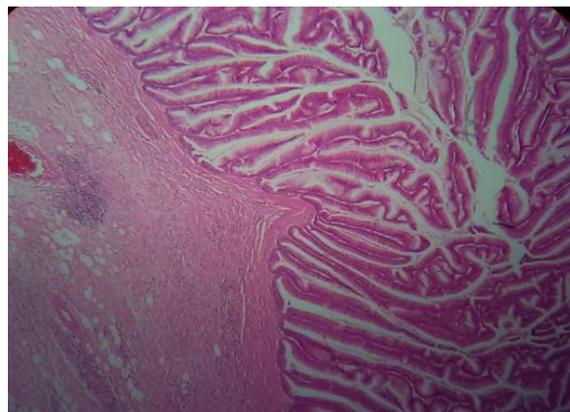


Figure 4: IPMT in resection specimen HEX20

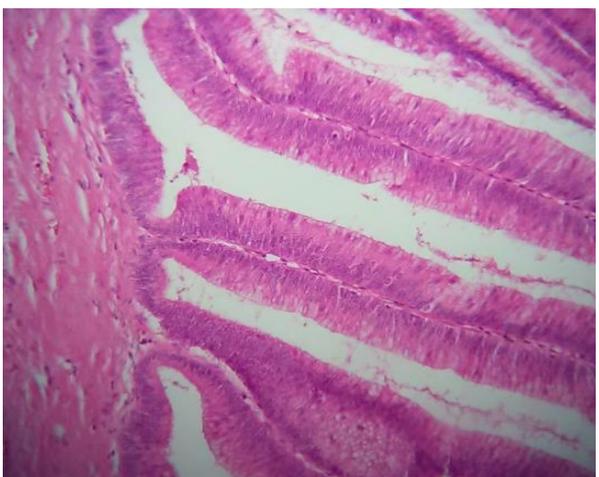


Figure 4: IPMT in resection specimen HEX40

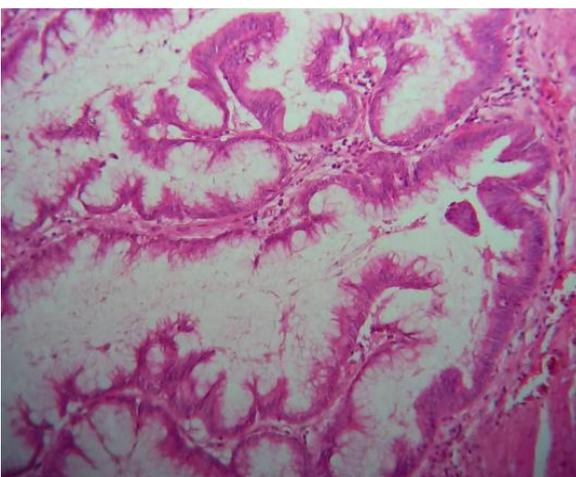


Figure 4: IPMT in resection specimen HEX40

DISCUSSION

Many publications have been devoted to this condition to assert that, initially benign, it has a certain

malignant potential (Couvelard, A. *et al.*, 2005; Partensky, C. 2008).

The pre-cancerous nature of IPMT lesions and the good results published after resection justify, for the vast majority of authors, their complete resection, which is all the more urgent as the existence of evolved dysplasia seems likely given the assessment preoperatively. But the oncological risk, often difficult to fix individually, must be weighed against the operative risk of this resection and its functional consequences (Couvelard, A. *et al.*, 2003 ; Sauvanet, A. *et al.*, 2010).

The extension of the lesions poses a difficult problem and however crucial because its evaluation has an important role in the prediction of the extent of the surgical excision, the CT is interesting in this decision.

The specialized teams currently report a mortality of pancreatic resections of between 0 and 5%, which seems to allow a resolutely surgical attitude towards these lesions. But the morbidity of these resections, performed on an inconstantly fibrous pancreatic parenchyma, is still important.

To avoid the disabling functional sequelae of total pancreatectomy (insulinoprive diabetes very difficult to balance), a limited pancreatic resection is generally proposed, the type of which is guided a priori by the preoperative morphological assessment data. Given the relative reliability of the latter, the use of the extemporaneous examination of the slice of pancreatic section is essential (Partensky, C. 2008).

To perform a complete excision of the dysplastic epithelium, successive pancreatic cuttings are sometimes necessary, with iterative frozen section examinations, and can make these interventions long and tedious.

The existence of a slice of section, obtained after an already extensive pancreatic resection, bearing lesions in low grade dysplasia is a difficulty sometimes encountered. Total pancreatectomy, theoretically indicated, may need to be discussed depending on the age, the site and the degree of dysplasia present on the lesions of the resected pancreas (Dal Borgo, C. *et al.*, 2019).

The theoretical limitation of using the frozen sections to adapt the extent of resection is the existence

of discontinuous IPMT lesions, which represent 6% of the specimens. This rate of 6% is probably responsible for the 7% to 8% recurrence reported after partial pancreatectomy. When they reach the main canal, preoperative forceps can be used with staged biopsies. However, this technique is feasible only if the main duct is dilated, and it has been reported only by a few groups (Couvelard, A. *et al.*, 2005).

CONCLUSION

Despite the diagnostic and therapeutic advances. Pitfalls persist. The presence of discontinuous lesions (skip lesions) which escape the per-operative detection by frozen section of the slice of pancreatic section is an example.

The perspectives lie in the progress of pre- and post-operative diagnostic means. The collection of pancreatic fluid from the ducts of the pancreatic stump that will be left in place for perioperative cytology has been described. The performance of virtual pancreatography has been reported. The technique uses computer processing of the image (post-processing) from CT or MRI, but presents a risk of iatrogeny insofar as it involves the establishment of a naso-pancreatic drain.

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