Peroperative fine needle aspiration cytological diagnosis of solid cystic papillary tumour of the pancreas

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Introduction

Solid and cystic papillary tumour of the pancreas, is a malignant neoplasm, generally occurring in young persons, commonly females (1, 2). If completely resected, even if infiltrative in nature, the patients have an excellent prognosis. Although reported to be rare, 3 cases have been documented in Sri Lanka (1, 2). We have diagnosed four other cases within the past year.

A definite pre or peroperative diagnosis of the lesion is useful, as it would enable complete resection of the tumour to be undertaken, even if the tumour has a formidable appearance during surgery. Accurate preoperative cytological diagnosis has been reported previously (3).

We report two cases of solid cystic papillary pancreatic tumours, in which peroperative fine needle aspiration cytology was performed for diagnosis of the lesion. The characteristic cytological features are documented.

Patients

Case 1. 14 year old female with a well encapsulated tumour of the tail of the pancreas (8" x 7").

Case 2. 16 year old female with a large infiltrative tumour of the head of the pancreas, causing obstructive jaundice.

Fine needle aspiration of the tumour was performed during operation by the surgeon, and the smears were fixed in absolute methanol for 5 minutes and stained with a quick haematoxylin and eosin technique, the entire procedure taking about 15 minutes.

Cytological appearances

The smears were hypercellular, and showed clusters of moderately sized cells, forming papillary and glandular structures and small solid clusters (Fig. 1). The constituent cells were moderate in size, strikingly uniform in appearance and had regular round nuclei, with finely stippled chromatin, and small chromatic dots (Fig. 2). Numerous free cells with similar appearance were seen in the background, along with cell debris, and a few inflammatory cells. The lack of cellular atypia was striking. In the first case a tentative diagnosis of a papillary tumour was made. A definite diagnosis of a solid cystic papillary tumour of the pancreas was made in the second case. The latter diagnosis enabled an intraoperative decision to be made to carry out a formidable resection, including, consultation with an oncologist during operation to plan postoperative management.

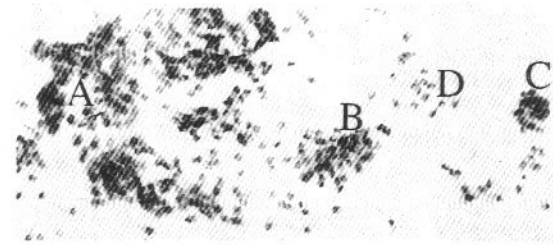

Figure 1

Hypercellular smear shows papillary (A), solid (B) glandular (C) structures, and free cells (D). Haematoxylin and eosin 6 x 10.

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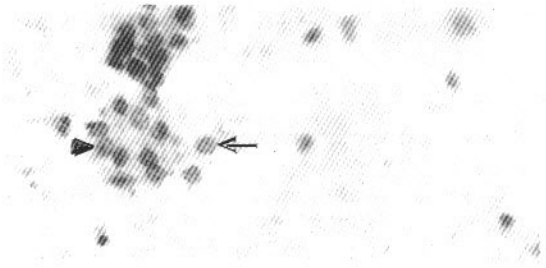

Figure 2

A glandular structure (arrow head) composed of cells with regular nuclei containing finely stippled chromatin and a small chromatin dot. A free cell (arrow) with similar appearance Haematoxylin and eosin 6 x 20

Conclusion

In the correct clinical setting of a tumour of the pancreas in a young person, the cytological findings of small clusters of cells, and papillary and glandular structures composed of uniform cells, lacking in atypia, enables a diagnosis of solid and cystic papillary tumour of the pancreas to be made using the simple and quick procedure of fine needle aspiration cytology, and quick haematoylin and eosin staining.

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