

Clinically Occult Signet-Ring Cell Carcinoma Of The Gallbladder

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Citation

N Afroz, N Khan, S Zaheer, M Khan. *Clinically Occult Signet-Ring Cell Carcinoma Of The Gallbladder*. The Internet Journal of Pathology. 2008 Volume 10 Number 1.

Abstract

Dear Sir,

Gallbladder cancers are recognized common tumors of the gastrointestinal system. Conventional adenocarcinoma of the gallbladder, also referred to as pancreatobiliary type adenocarcinoma is the most common malignant neoplasm of this organ. Signet-ring cell carcinoma of the gallbladder is a very rare as only a few cases have been reported and little is known about the disease.¹

We report a case of signet-ring cell carcinoma of the gallbladder in a 70 year-old male who was operated upon after the preoperative diagnosis of cholecystitis and cholelithiasis, based on ultrasonographic findings. Upper and lower GI endoscopy was normal. The resected gallbladder showed thickened wall at the fundus without any significant mucosal thickening and had 12 multifaceted stones. The histopathological examination showed a diffuse infiltrative carcinoma, invading upto the serosa, and comprising exclusively of signet ring cells (large columnar to polygonal cells with a small round basal or eccentric nucleus and vacuolated cytoplasm (Fig. 1 & 2).

Figure 1

Fig1 – Infiltrating signet-ring cells in sheets (gallbladder- Haematoxylin & Eosin stain X 200).

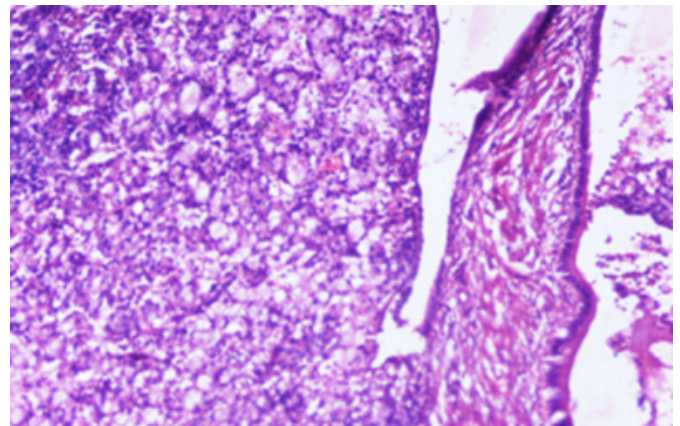
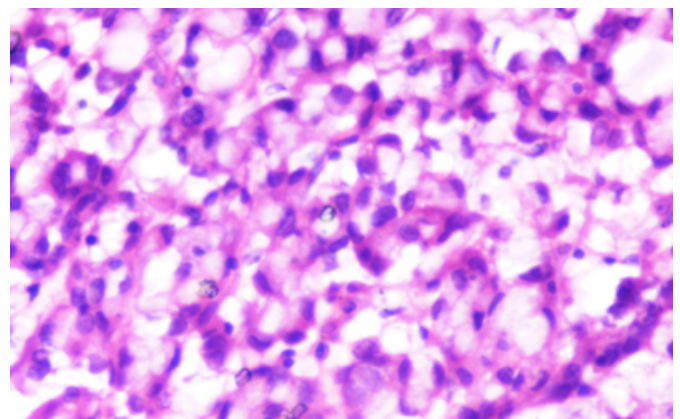


Figure 2

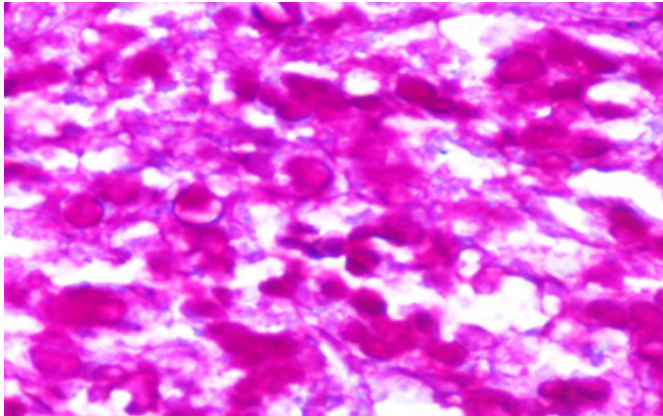
Fig2 – Signet-ring cells with cytoplasmic vacuolation and compressed eccentric nuclei (gallbladder- Haematoxylin & Eosin stain X 400).



The cells showed uniform positivity with Alcian blue, mucicarmine and periodic acid Schiff stain (Fig. 3).

Figure 3

Fig3 - Signet-ring cells showing uniform cytoplasmic positivity (gallbladder Periodic acid Schiff stain X 400).



The cytoplasmic vacuolation were negative for fat stains (Oil red O). Immunohisto-chemically, the signet ring cells showed positivity for pancytokeratin and epithelial membrane antigen, while these were negative for chromogranin A.

Patient denied to undergo a second look operation for curative resection and left the hospital

This entity is hereby reported because of its rarity, its unique

histomorphology and diagnostic inadequacy of the routinely performed ultrasonography, highlighting the significance of a thorough tissue sampling and use of special stains and immunohistochemistry to exclude other possibilities (e.g. signet ring carcinoid: which is chromogranin A positive and benign signet ring cell aggregates: which are confined to the surface of the gallbladder mucosa only²). Signet ring cell carcinoma of gallbladder is a highly aggressive neoplasm with potential risk of visceral and bony metastasis.³ Available reports revealed the fact that patient mortality has occurred within one year despite the radical surgery and conventional chemotherapy.^{1,4} Further information regarding advanced therapy may help to improve the prognosis of this aggressive tumor.

References

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