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A previously healthy 64-year old gentleman presented with a two month history of painful blackish swelling over the left alar of nose. Apart from that, there was no nose block, anosmia, facial numbness or tenderness, no signs of any orbital, neurological or constitutional symptoms. The blackish mass (**Panel**) was noted to be fixed to the left alar of nose encroaching into left vestibule. Nasoendoscopic examination revealed no extension into the left or right nasal cavity with intact nasal septum. Contrast enhanced computer tomography of the abdomen revealed a nodular, irregular liver margin (consistent with liver cirrhosis) with three ill-defined heterogeneous enhancing liver masses with enlarged matted peri-portal, celiac, peri-pancreatic, retro-caval, aorto-caval and para-caval lymph nodes.

What is the diagnosis?

Answer: refer to page 323

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Answer: Metastatic hepatocellular carcinoma to the nose

The patient underwent a wedge biopsy under local anaesthesia and histology showed metastatic hepatocellular carcinoma (HCC). Para-nasal computer tomography revealed mass arising from left nasal vestibule extending exophytically measuring 1.5 x 0.7 cm. This patient had metastatic HCC on the background of liver cirrhosis. There were also metastases to the lung and bone.

HCC is one of the most common cancer worldwide, with the highest incidence in regions with high prevalence of chronic viral hepatitis infection, especially hepatitis B and C infection.¹ It is more common among males in the middle aged group.¹

HCC is an aggressive tumour known for its propensity to invade portal and hepatic veins, lymphatic systems and also distant metastasis. Common sites of extrahepatic metastasis of HCC are the lungs, peritoneum, adrenal glands and bone, albeit rare, extrahepatic metastasis to the heart, orbital cavity, skin, external auditory canal, pharynx and nasal cavity have been reported.² Extrahepatic metastasis of HCC to sinonasal region are rarely encountered. Precise mechanism of

metastasis to the nose is poorly understood, however several theories have been postulated including: haematogenous and lymphogenous spread.³ Haematogeneous dissemination to the pulmonary capillary network explains mechanism spread to the lung then to the nasal cavity. Retrograde flow of the jugular venous system with its rich venous communication near the nasal sinuses can also spread the tumour to the head and neck region.

Through the lymphatic channels, malignant cells can spread to the hepatic lymph nodes in porta hepatis, then to coeliac nodes and finally into the thoracic duct and regional lymph nodes such as hepatic, peri-pancreatic, celiac and para-aortic nodes before spreading to the head and neck region. It is suggested that adhesion proteins or chemical receptors in the nasal tissue can attract HCC cells to this region.⁴

Sinonasal metastatic HCC like all the other extrahepatic metastasis has poor clinical outcome. Expected life span after appearance of sinonasal lesions is limited, ranging from six weeks to 21 months. As for our patient, he passed away 12 months after the diagnosis.

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