

Undifferentiated carcinomas across multiple organ sites: A retrospective review with a rare case of colorectal carcinoma from Scarborough Health Network

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ABSTRACT

Undifferentiated carcinomas are rare, usually highly aggressive malignancies with unclear cellular origin and limited data to guide diagnosis and treatment. A total of 13 surgical pathology reports diagnosed as undifferentiated carcinomas between 2002 and 2025 were retrieved from the Scarborough Health Network (SHN) database for review.

We also present here a rare recent case of undifferentiated carcinoma of the colon in a 39-year-old South-Asian male. The patient presented with anemia, weight loss, and a circumferential necrotic mass at the splenic flexure. Histological analysis revealed Grade 4 undifferentiated carcinoma with rhabdoid features, lymphovascular invasion, and no lymph node involvement. Immunohistochemistry showed positivity for PanCK and CK18, while molecular testing revealed CKIT (D816Y) and BRAF (D594G) mutations, with wild-type PDGFRA, KRAS, and NRAS. The tumour was staged pT3pN0, with all margins uninvolved. This case underscores the diagnostic complexity and molecular heterogeneity of undifferentiated carcinomas and emphasizes the need for thorough histopathological and genetic analysis to inform clinical management.