

Analysis of Margin Assessment Techniques in Gastric Carcinoma Surgery and its Prognostic Implications

Ramakant Bhosale¹ and Dr. Nagendra Pratap Mishra²

Research Scholar, Department of Biochemistry¹

Research Guide, Department of Biochemistry²

Sunrise University, Alwar, Rajasthan, India

Abstract: Gastric carcinoma remains a leading cause of cancer-related mortality globally, necessitating an accurate pathological evaluation to guide therapeutic decision-making and prognostication. The surgical pathology of gastric carcinoma provides crucial insights into the tumor's character, extent, and the potential for metastatic spread, all of which are vital for determining the appropriate surgical and adjunctive treatment approaches. This critical review seeks to encompass the contemporary understanding and challenges in the surgical pathology of gastric carcinoma. The discussion will encompass histopathological classifications, molecular alterations, and the significance of margin status alongside lymphovascular and perineural invasion. The review will also explore the emerging molecular and immunohistochemical markers that are refining the pathologic assessment and its correlation with clinical outcomes. Furthermore, the role of multi-disciplinary tumor boards in integrating surgical pathology findings with clinical and radiological data for a comprehensive patient management plan will be highlighted. Through a meticulous analysis of recent literature and comparison of standard and evolving pathological assessment methods, this review aims to delineate the pivotal role of surgical pathology in the holistic management of gastric carcinoma. This exploration is paramount in underlining the importance of accurate pathological evaluation, which not only delineates the disease extent but also significantly impacts the treatment planning and prognostic stratification, thereby potentially improving the overall survival and quality of life for patients afflicted with gastric carcinoma

Keywords: Gastric Carcinoma, Surgery, Margin Assessment, Techniques

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