Abstract: Although proliferating cell nuclear antigen (PCNA) is known to be an indicator of malignant potential in tumors, the biological and clinicopathological significance of PCNA in tumor tissue is controversial. Methods: Immunohistochemical expression of PCNA was examined in 58 gastric carcinoma tissues obtained at autopsy to test the clinicopathological significance. In addition, in 24 of the 58 tumor tissues we compared immunohistochemical expression of PCNA in biopsy and autopsy specimens from the same patient in order to know whether the proliferating activity of tumor cells is stationary from the early stage to the end of tumor growth. Results: 1. PCNA was undetectable in some tumor tissues (12.5% in biopsy and 10.3% in autopsy specimens). 2. the frequency of PCNA positive cases and labeling index (LI) (%) of PCNA in tumor tissues were not significantly different between biopsy and autopsy specimens. 3. the intensity of PCNA reaction was not related to prognosis. 4. PCNA positive cases and LI did not correlate with survival condition. Conclusion: It is hard to say whether PCNA is a reliable indicator in predicting malignancy and prognosis of gastric cancer. J. Med. Invest. 44 : 149-153, 1998

Key Words: PCNA, gastric cancer, immunohistochemistry
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