**ABSTRAK**


**Tujuan.** Untuk mengetahui ekspresi p53 mutan dalam menentukan derajat differensiasi dan prognosa adenokarsinoma kolorektal di Laboratorium Patologi Anatomi RSUP Haji Adam Malik Medan

**Metode.** Penelitian ini menggunakan rancangan observasional dengan melakukan pendekatan cross sectional. Sampel penelitian ini adalah sediaan blok parafin dari 59 jaringan karsinoma korektal yang didiagnosa sesuai dengan kriteria inklusi. Semua variabel diwarnai dengan immunohistokimia p53 mutan.

**Hasil.** Distribusi terbanyak penderita karsinoma kolorektal berdasarkan; kelompok usia 60 tahun sebanyak 24 kasus (40.68%), jeniskelamin; laki-laki sebanyak 36 kasus (61.02%), lokasi jaringan; colon sebanyak 36 kasus (61.02%), grading adenokarsinoma ; well differentiated adenocarcinoma sebanyak 27 kasus (45.76%) dan berdasarkan tampilan p53 mutan yang terbanyak adalah skor +1 (lemah): 35 kasus (59,32%). Perhitungan fisher exact dengan tabel crosstab 2x2 bahwa p value= 0,427 (p value> 0,05).

**Kesimpulan.** Tidak ada perbedaan ekspresi p53 mutan dengan grading histopatologi pada adenokarsinoma kolorektal.

Kata kunci: adenokarsinoma, karsinoma kolorektal, immunohistokimia p53 mutan

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ABSTRACT

**Background:** Cancer is an important problem in public health worldwide, especially in developed countries. About 10 million new cases are diagnosed every year. Colorectal carcinoma is more common in men than in women. Despite significant advances in both surgical methodology and adjuvant therapy regimes, long-term survival for CRC patients is in the range of 50-60%. Based on WHO, 90% colorectal carcinoma was adenocarcinoma. Colorectal carcinoma is caused by a collection of various genetic changes, and the most common cause is a loss of function of the p53 tumor suppressor gene. P53 tumor suppressor gene plays an important role in cell cycle and apoptosis. This gene encodes a 53 kDa phosphoprotein and is frequently targeted for inactivation in a wide range of tumors. It is the target of point mutations and small deletions and insertions that lead to total or partial abolition of protein function. Inactivation is believed to abolish the ability of p53 to maintain genomic integrity through regulation of various activities, including the control of cell cycle arrest, DNA repair, and apoptosis. Accumulation of p53 in tumor cells can be detected with a specific p53 antibody. Mutation on p53 gene and overexpression of p53 is common in colorectal carcinoma tissue, and p53 mutant and p53 wild type can be targeted by p53 specific antibody. P53 overexpression is associated with colorectal carcinoma histological grade and tend more common in colorectal carcinoma with high proliferation activity.

**Objective:** To assess p53 mutant expression in determining differentiation grade and prognosis adenocarcinoma colorectal and the prognosis of adenocarcinoma colorectal at Anatomic Pathology laboratory of RSUP Haji Adam Malik Medan.

**Methods:** The study design was observational design with cross-sectional approach. All variables were immunohistochemically stained with p53 mutant. The variables were measured only once at one moment. The samples used in this study were the sample preparation of paraffin blocks from 59 colorectal carcinoma tissues which diagnosed pathologically according inclusion criteria. All variables were immunohistochemically stained with p53 mutant.

**Results:** Distribution of patients by age group mostly aged over 60 years which is 24 cases (40.68%). Distribution of patients by sex mostly male which is 36 cases (61.02%). 36 cases (61.02%) were located on colon. The majority, 27 cases (45.76%) were diagnosed as well differentiated adenocarcinoma. Colorectal carcinoma samples based on p53 mutant expression were score+1(weak) were 35 cases (59.32%). Calculation of chi-square with 2x2 crosstabtable, p value=0.427(p value>0.05).

**Conclusion:** No difference between p53 mutant expression with histopathological grade in colorectal adenocarcinoma.

Key world: adenocarcinoma, carcinoma colorectal, p53 immunohistochemistry.