

**Results:** Between 2010 and 2015 excise tax rates and real cigarette prices have increased by 1.5 times, the level of cigarettes consumption per capita decreased by 16%, while the smoking prevalence rates decreased by 6.1% among men and by 9.2% among women. A Spearman correlation analysis suggests a statistically significant negative association between real cigarette prices and cigarettes consumption per capita ( $r=-.099$ ;  $p<0.000$ ). The youngest age groups of both men and women did experienced a greater decrease in the smoking prevalence rates: in the age group 16-19 years old the smoking prevalence rates decreased by 28.9% among men and by 12.7% among women; in the age group 20-29 years the smoking prevalence rates decreased by 10.8% among men and by 30.1% among women. The real cigarette prices were significantly associated with both male and female smoking prevalence rates. The relationship between real cigarette prices and smoking prevalence rates was stronger for the age groups 16-19 and 20-29 years.

**Conclusions:** The results from this study suggest an inverse aggregate-level relationship between real cigarette prices, cigarettes consumption per capita and smoking prevalence rates. The outcomes also indicate that young adults are particularly sensitive to reduction in the cigarette affordability. These findings suggest that the excise tax increase is among the most effective tobacco control strategy.

#### *Literature*

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## **PROGNOSTIC SIGNIFICANCE OF NRP1 EXPRESSION IN HIGH-GRADE COLON ADENOCARCINOMA**

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**Introduction.** It should be noted that patients with high-grade adenocarcinomas (HGA), even at similar scope and nature of surgical intervention, the effectiveness of the treatment is different: some patients live 5 years or more, while others - die early after treatment on disease progression.

**Purpose.** To determine the value of NRP1 expression in HGA of colon for the prognosis of the disease.

**Material and methods.** Operating material of HGA studied from 17 patients (10 men and 7 women) aged 54.7 to 80.7 years (74.45 (67,14-76,61)). The study was performed on paraffin sections, 3-4 microns thick using mouse monoclonal antibodies to NRP1 (ab81321) by standard methods. Quantification of

the expression level was performed using Aperio Image Scope program [1]. Statistical analysis was performed using STATISTICA 10.0 (SNAXAR207F394425FA-Q).

**Results.** HGA were detected as the same frequency at the proximal localization (8 cases (47%)) and distal (9 cases (53%)). In 9 cases (53%) cancer sprouted entire thickness of the bowel (T3), in 3 cases (17.6%) - muscle (T2), and in 5 cases the tumor sprouted visceral peritoneum (T4). At the time of diagnosis in 12 (70.6%) patients were found metastases in regional lymph nodes. Hematogenous metastases were diagnosed in 6 patients (35.3%). In 5 patients (29.4%) over time have any relapses, all of which occurred during the first two years after surgery. On average, the tumor recurred after 1.15 years (1,0-1,68). Overall survival (January 2016) was 2.3 years (1,3-4,48). Adjusted progression-free survival was 1.5 years (1,0-2,3).

We evaluated NRP1 expression in the epithelium and stroma HGA and their margins of resection. We compared the expression of a marker with the 2-year disease-free survival adjusted. Statistically significant differences in the level of positivity NRP1 adjusted depending on disease-free survival were found ( $p > 0.05$ ).

**Conclusion.** Further research of NRP1 expression should be carried out in conjunction with other markers of angiogenesis and clinical and morphological parameters, as the self-antigen can not be used for the prediction of colon cancer.

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