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COLONIC DYSBIOSIS IN PANCREATIC EXOCRINE INSUFFICIENCY CONCOMITANT WITH OSTEOARTHRITIS IN THE CONTEXT OF AGE

Shevchenko N.O.

c.m.s., as.prof.

ORCID: 0000-0001-8963-4680

Odessa National Medical University,
Odessa, 2 Valikhovsky Lane, 65000

Abstract. Recent studies have revealed a high prevalence of comorbidity between chronic pancreatitis (CP) and primary osteoarthritis (OA), particularly in elderly and senile patients. As a result of CP-related complications, such as impaired digestion and intestinal absorption, entero-pancreatic syndrome often develops. This pathological condition leads to the onset of colonic dysbiosis (CD) and triggers a range of pathological processes that contribute to the worsening course of comorbid conditions

Key words: chronic pancreatitis, colonic dysbiosis, comorbid pathologies, age aspect

Introduction.

Recent studies have revealed a high prevalence of comorbidity between chronic pancreatitis (CP) and primary osteoarthritis (OA), particularly in elderly and senile patients [1, 4]. As a result of CP-related complications, such as impaired digestion and intestinal absorption, entero-pancreatic syndrome often develops. This pathological condition leads to the onset of colonic dysbiosis (CD) and triggers a range of pathological processes that contribute to the worsening course of comorbid conditions.

Main text.

Objective: The aim of the work was to study the degree and depth of colonic dysbiosis in patients with chronic pancreatitis combined with primary osteoarthritis in a cohort of elderly and senile patients.

Materials and Methods: Thirty-two outpatient patients with CP and primary OA of elderly age (61–75 years; Group I) and 28 senile patients with CP and primary OA aged over 76 years (Group II) were examined. The control group consisted of 30 healthy individuals matched by gender. The degree of pancreatic exocrine insufficiency (PEI) was assessed by fecal elastase-1 levels using an enzyme-linked

immunosorbent assay (ELISA) with standard BIOSERV ELASTASE 1-ELISA kits, evaluated according to international standards, where FαE levels >200 µg/g indicate the absence of PEI [2]. The diagnosis of primary OA was established based on unified diagnostic criteria, and the radiological stage of primary OA was determined according to the classification by J.H. Kellgren and J.S. Lawrence. Coproculture analysis for colonic dysbiosis (CD) was performed according to the methodology of R.V. Epstein-Litvak and F.L. Vilshanskaia.

Results and Discussion: During patient examination, colonic dysbiosis (CD) of varying degrees was detected in both groups. In Group I, CD Stage 1 was observed in 12 (37.5 %) patients, CD Stage 2 in 9 (28.1 %) patients, and the microflora of 11 (34.4%) individuals was within age norms. Pancreatic exocrine insufficiency (PEI) was identified in 82.5% of cases in this group. In Group II, CD Stage 1 was observed in 13 (46.4%) patients, CD Stage 2 in 13 (46.4 %) patients, and the microflora of 2 (7.2 %) individuals was within age norms. Functional pancreatic disorders in the context of OA were detected in 92.8 % of cases.

Summary and conclusions.

In the group of patients aged over 76 years, dysbiotic changes were statistically more pronounced than in the group aged 61–75 years, indicating a significantly more severe clinical course of CP under conditions of comorbidity with primary OA in the older age group. Disruption of the colonic microbiocenosis was observed against the background of substantial functional pancreatic impairment in CP.

Further research will focus on the study of CP combined with primary OA in relation to age, including the development of programs for correcting the identified disorders.

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