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CONNECTIVE TISSUE DYSPLASIA AS A CAUSE OF GASTROESOPHAGEAL REFLUX DISEASE: A CASE REPORT

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The article presents a clinical case of detecting gastric metaplasia of the esophageal mucosa in combination with anatomic and physiological changes in the organs of the gastroduodenal zone in a young woman with no bad habits, hereditary burden and other risk factors for reflux disease.

Pronounced changes in the osteoarticular apparatus in combination with changes in the skin, muscles and disorders of the internal organs suggest that this patient may have connective tissue dysplasia.

The patient underwent endoscopic ablation of the pathologically altered esophageal mucosa, followed by the appointment of an esophageal protector in order to maintain a stable remission.

Keywords: Gastroesophageal reflux disease, Barrett's esophagus, gastric metaplasia, reflux esophagitis, connective tissue dysplasia.

Introduction. Gastroesophageal reflux disease (GERD) has become one of the important problems of recent years in the modern clinic of internal diseases. A decisive role in the pathogenesis of the disease is played by a violation of the motor-evacuation function of the upper organs of the gastrointestinal tract, namely, insufficiency of the lower esophageal sphincter and dysfunction of the phrenicoesophageal ligament [9]. Frequent refluxes into the esophagus of gastric, and in some cases of duodenal contents contribute to damage to the mucous membrane of the distal esophagus with the development of catarrhal or erosive-ulcerative esophagitis, and in some patients with cylindrical cell metaplasia and the appearance of clinical symptoms that worsen the quality of life [9]. According to some authors, one of the possible causes of GERD can be considered connective tissue dysplasia (CTD), in which pathological structural changes can occur, leading to dysfunctions of internal organs and body systems. [7,8,11].

According to clinical guidelines, CTD is distinguished into differentiated and undifferentiated. The primary defect in collagen synthesis, which is characterized by a characteristic type of inheritance and a vivid clinical picture, is manifested by the syndromes of Marfan, Ehlers-Danlos, osteogenesis imperfecta, "flaccid skin", etc., which are referred to as differentiated CTD, while, with undifferentiated CTD, there may be organ manifestations without clear symptoms and morphological changes in the affected organs [2,4,11].

In the literature, reports are more common about the influence of undifferentiated variants of dysplasia on the course and manifestations of the pathology of the digestive tract, mainly in children and adolescents [8,11]. At the same time, as the researchers note, the problems of diagnosing undifferentiated connective tissue dysplasia lie in the variety of phenotypic features and the absence of uniform diagnostic criteria [8,11].

Purpose of the study. We analyzed the clinical case of detecting gastric metaplasia of the esophageal mucosa in combination with anatomophysiological changes in the organs of the gastroduodenal zone in a young woman (31 years old) with no bad habits, hereditary burden and other risk factors for reflux disease.

Material and research methods. We present the interesting clinical observation of a young patient (woman, 31 years old), she was urgently hospitalized in the emergency department of the Republican Hospital No. 2 of the Center for Emergency Medical Aid in 2019 with a characteristic clinic of exacerbation of chronic pyelonephritis. Against the background of antibiotic therapy, the patient developed aching pains in the epigastrium and in the right hypochondrium, aggravated after eating, a constant feeling of nausea, sometimes vomiting of stomach contents, and therefore was consulted by a gastroenterologist.

In addition to the above complaints, a detailed survey revealed that the patient constantly noted heartburn, regurgitation and belching with air, aggravated after eating, with a change in body position during the day, including at night. Recently, she has been worried about the burning sensation of the tongue, poor tolerance of hunger (the occurrence of headaches, weakness).

Medical history: The patient has been ill since childhood. She notes that there was always belching with air, sometimes regurgitation. Also, from an early school age, periodically after an error in the diet (eating fatty foods), she had vomiting of bile. She first sought medical help in 2010, when, at the 26th week of pregnancy, after taking fatty foods, severe heartburn, repeated vomiting of bile, and fever arose. The patient was taken urgently to the department of pathology of pregnant women. Against the background of infusion treatment and adherence to the diet, the state of health improved. Constant heartburn, epigastric pain, aggravated after eating, increased frequency of belching with air appeared in 2013. She lost three kilograms in a year. She went to the local polyclinic. Endoscopic examination revealed reflux esophagitis, superficial gastritis (protocol not provided), treatment was prescribed with omeprazole 20 mg per day for three weeks. At the end of the course of treatment, epigastric pains subsided, heartburn and belching became less frequent and unexpressed. In September 2017, epigastric pain and persistent heartburn reappeared. Along with the above symptoms, for the first time, the patient began to notice a constant feeling of nausea, periodically ending with vomiting, soreness and discomfort in the throat, and hoarseness. Esophagogastroscopy revealed focal hyperemia of the esophageal mucosa of the lower third of the type of "tongues of flame" and targeted biopsy was performed for morphological verification of structural changes

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in the esophageal mucosa. The result of histopathological examination: stratified squamous epithelium with areas of transition to the epithelium of the gastric type with moderate lymphoplasmacytic infiltration of the stroma. After a three-week course with proton pump inhibitors in a standard dosage, the patient noted an improvement in well-being. A year later, heartburn at night, a constant burning sensation of the tongue, began to disturb again. She was treated by a dentist for inflammation of the papillae of the tongue and deterioration of the teeth. She took antacids on her own and did not seek specialized medical help. She associates a real deterioration in well-being with antibiotic therapy for exacerbation of pyelonephritis.

Life history: The patient grew and developed according to her age. At the same time, she differed from her peers in flexibility, tall stature and slenderness. Work is associated with psycho-emotional overload. No bad habits. Eating irregular, unbalanced, sufficient calories.

On the maternal side, heredity is not burdened by connective tissue disorders, the presence of associated anomalies and malformations, cardiovascular accidents and oncological diseases, on the paternal side this is unknown. The family has two children. According to the patient, the brother is tall, slender, and suffers from spinal scoliosis.

Chronic diseases: OU myopia medium, mitral valve prolapse, hypotonic vascular dystonia, hypokinetic biliary dyskinesia, chronic pyelonephritis.

Gynecological history: Pregnancy - 1, childbirth - 1, on time, fast, spontaneous.

Data of examination, research and their discussion: General condition is satisfactory. Asthenic body type. Height 170 cm, weight 56 kg. BMI 19.4 kg / m². Musculoskeletal system: asthenic chest, spinal scoliosis, hallux valgus. Hypermobility of the interphalangeal joints of the hands. Muscle hypotrophy and hypotonia. The skin is pale in color, thin translucent, the turgor is reduced. The tongue is moist, with unevenly pronounced papillae, the root is coated with a white bloom. The abdomen is regular in shape, with superficial palpation, soft, moderately painful in the epigastrium. The tapping symptom is weakly positive on both sides. Physiological functions are normal. The rest of the organs and systems are unchanged.

According to laboratory data, moderate hypoproteinemia (total protein 64 g / l, with a norm of 66-83 g / l), indicators of fat and carbohydrate metabolism without deviations. In general blood tests, ESR is 20 mm / h. The content of micro- and macronutrients, the study of atrial sodium uretic peptide has not been carried out.

In dynamics after 2 years on esophagogastroscopy, pronounced hyperemia in the form of "tongues of flame" occupies circularly the entire mucous membrane of the lower esophagus with proximal spread of various lengths and morphologically confirmed gastric metaplasia, without epithelial dysplasia.

Computed tomography of the abdominal cavity and retroperitoneal space using bolus contrast enhancement did not reveal any pathological changes.

X-ray examination of the upper gastrointestinal tract with contrast revealed no closure of the cardia; with the Trendelenburg test, a reverse throw of contrast from the stomach into the esophagus was noted. Elongation of the stomach, its lower pole is located above the entrance to the small pelvis, at the -S1 level. Conclusion: X-ray signs of reflux esophagitis. Insufficiency of the cardia. Grade 2 gastroptosis (Fig.).

Diagnosis of the functional state of the esophagus and the esophageal-gastric junction using intraesophageal daily pH-metry, pH-impedance and high-resolution manometry has not been carried out, due to the lack of research methods in the hospital.

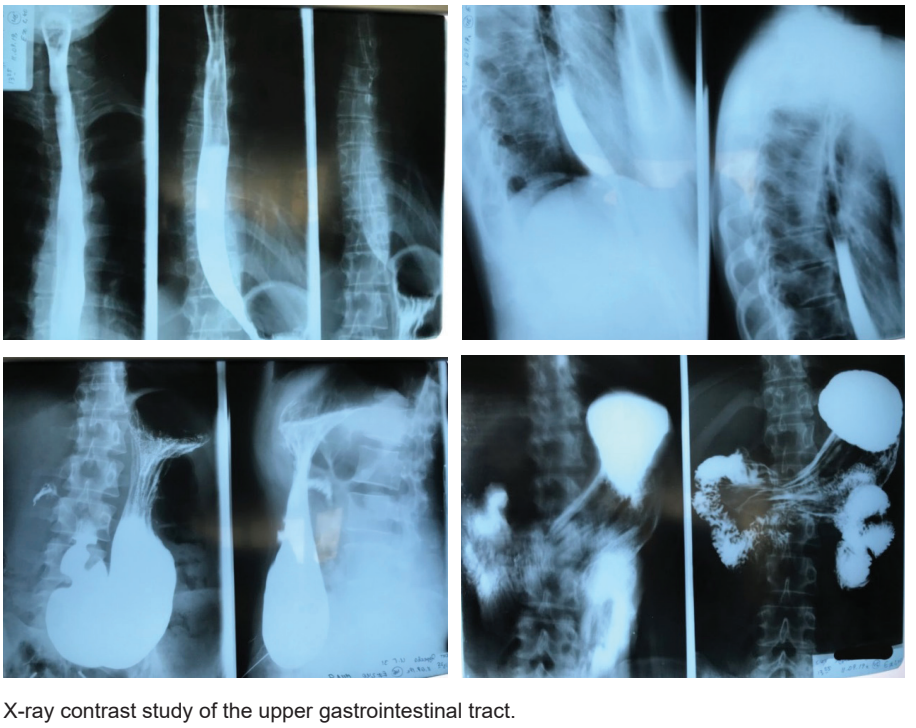
On the basis of complaints, history, physical examination, laboratory and instrumental studies, the diagnosis was made: Gastroesophageal reflux disease. According to the Los Angeles classification of reflux esophagitis, grade D. Barrett's esophagus. Gastroptosis 2 tbsp. Background: Undifferentiated connective tissue dysplasia.

The patient was given dietary and lifestyle recommendations, medicinal therapy was started with use of a proton pump inhibitor, prokinetic and antacid, the purpose was to effectively treat clinical symptoms and maintain a stable remission of the diseases. Of the proton pump inhibitors, dexlansoprazole was selected with a prolonged antisecretory effect with a single dose regardless of food intake [9], it provided effective control of the nighttime symptoms of heartburn in this patient. At the same time, irregular medication intake, non-compliance with dietary and lifestyle recommendations affected the quality of therapy.

According to the literature, with gastric emptying due to deceleration of motility, disorders of sympathicotonia, duodeno-gastric and gastroesophageal refluxes may occur, leading to destructive changes in the mucous membrane of the gastroesophageal zone [7,8,11].

Given the young age, pronounced gastroptosis, non-adherence to drug therapy, the patient was consulted by a gastro-surgeon and endoscopic ablation of the pathologically altered esophageal mucosa was proposed, after which the clinical manifestations of reflux disease were relieved within a year, and in order to maintain stable remission, the esophagoprotector alfazox was prescribed in a standard dosage.

The American Gastroenterological Association (AGA) and the American Society of Gastroenterological Endoscopy



X-ray contrast study of the upper gastrointestinal tract.

(ASGE) propose radiofrequency ablation for Barrett's esophagus in patients at high risk of developing adenocarcinoma and with hereditary oncological burden.

However, the American College of Gastroenterology (ACG) and the European Society for Gastrointestinal Endoscopy (ESGE) do not recommend endoscopic ablation in patients without dysplasia due to possible complications and high cost [1,3,10].

The article presents a clinical case of detecting gastric metaplasia of the esophageal mucosa in combination with anatomophysiological changes in the organs of the gastroduodenal zone in a young woman (31 years old). She did not have bad habits, hereditary burden and other risk factors for reflux disease.

The revealed pronounced changes in the osteoarticular apparatus, such as an asthenic type of constitution, deformation of the chest, spine, feet, hypermobility of the joints, in combination with changes in the skin, muscles and disorders of the internal organs - the heart, organs of vision and the digestive system, suggest that this patient may have connective tissue dysplasia. According to the patient, the manifestation of symptoms was noted already in childhood and, especially, in adolescence, it did not greatly affect the quality of life, after 25 years the severity of clinical symptoms of pathologies of the digestive system increases, which are confirmed by endoscopic and histological diagnostic methods, which is consistent with literature data [2.4-8.11].

To clarify the background disease of the patient, we need to conduct an in-depth comprehensive clinical, genealogical, laboratory instrumental and molecular genetic studies with the determination of biochemical diagnostic markers of connective tissue dysplasia, in particular, hydroxyproline [2,4].

When confirming undifferentiated CTD, taking into account the progressive course of the disease, which affects the patient's quality of life, dispensary observation is recommended with laboratory and instrumental research methods, depending on the leading clinical syndrome [2,4].

Conclusion: In the presented observation, clinical, endoscopic and morphological signs dominate, they are specific for Barrett's esophagus without epithelial dysplasia in combination with anatomophysiological changes in gastroduodenal organs. Changes in the osteoarticular apparatus, skin, muscles in combination with disorders of the internal organs suggest that this patient may have connective tissue dysplasia as the basic factor of reflux disease. In a standard dosage, the esophagoprotector Alfazox was prescribed to maintain stable remission and prevent epithelial dysplasia.

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