SH.Q.Oripov - Assistant of the neurology department of Andijan State Medical Institute

SECRETION OF IRON-STORING ENZYMES IN THE DIGESTIVE SYSTEM IN VARIOUS CONDITIONS

Anotation: The content of pepsinogen in saliva in pregnant women, in our opinion, increases as a result of increased secretory activity of the gastric glands and the reproductive capacity of the salivary glands, since the main source of pepsinogen is the main cells of the gastric glands. The study of the enzyme spectrum of saliva can be used in sialodiagnostics of the functional state of all glands of the gastrointestinal tract, since the composition of saliva contains enzymes that are actually secreted (amylase) and secreted from the blood (amylase, lipase and pepsinogen). By changing the composition of saliva, one can judge the state of the main enzyme producers. Thus, in pregnant women, the volume of salivation of total protein remains unchanged. During pregnancy, the activity and flow rate of pepsinogen in saliva increases by 2-4 times, the activity and flow rate of amylase and lipase by 1.5-2 times, which is an indicator of increased incretion of these enzymes into the blood by their main producers and increased secretion of them by the salivary glands.

Key words: pepsinogen, lipase, iron, transferrin, gestosis

Аннотация: Содержание пепсиногена слюны у беременных, по нашему мнению, увеличивается в результате повышенной секреторной деятельности желудочных желез и рекреторной способности слюнных желез,

так как основной источник пепсиногена - главные клетки желудочных желёз. Изучение ферментного спектра слюны можно использовать в сиалодиагностике функционального состояния всех желез желудочно-кишечного тракта, так как в составе слюны выделяются собственно секретируемые (амилаза) и рекретируемые из крови (амилаза, липаза и пепсиноген) ферменты. По изменению состава слюны можно судить и о состоянии основных продуцентов ферментов. Таким образом, у беременных женщин объем саливации общий белок остаются без изменений. При беременности в составе слюны активность и дебит пепсиногена возрастают в 2-4 раза, активность и дебит амилазы и липазы в 1.5-2 раза, что является показателем усиленной инкреции этих ферментов в кровь основными их продуцентами и усиления секреции их слюнными железами.

Ключевые слова: пепсиноген, липазы, железа, трансферрын, гестоз

Pregnancy is accompanied by physiological changes in the kidneys, urinary tract, as well as hemodynamics, biochemical indicators of liver function; the amount of albumin in the blood serum decreases by 20%, the content of alkaline phosphatase and cholesterol, as well as transferrin, increases by 2 times. The effect of pregnancy on pancreatic function has not been established. It is known that glucagon secretion increases during pregnancy. Insulin secretion also increases, especially at the end of pregnancy. Serum amylase activity, according to some reports, does not change; according to others, it increases, reaching a maximum at the end of the second trimester of pregnancy. When pregnancy is complicated by gestosis, generalized vascular spasm is observed with impaired perfusion of vital organs, which leads to disruption of their functions (central nervous system, kidneys, liver and fetoplacental complex) and the occurrence of complete organ

failure. Despite numerous studies, there are still no clear clinical diagnostic criteria for preclinical diagnosis and prediction of this severe complication of pregnancy. Taking this into account, we set a goal to establish the information content of clinical and laboratory data, to determine the hydrolytic enzymes of saliva in pregnant women with a physiological course and gestosis. We studied the hydrolytic enzymes amylase - synogen, lipase and total salivary protein in pregnant women aged 20-35 years. Mixed saliva was collected from subjects on an empty stomach without stimulation into centrifuge tubes for 5 minutes. Before collecting saliva, the oral cavity was thoroughly rinsed with tap water, then with distilled water. Among those examined, gestosis was found to be consistent with the physiological course of pregnancy. Indicators of practically healthy individuals served as controls. The data obtained showed that the volume of salivation and total protein in saliva in pregnant women, regardless of the type of pregnancy, remains at the level of the control group. Enzymatic changes in the composition of saliva were noted in pregnant women with both a physiological course and gestosis. Amylolytic activity and amylase release in saliva increased 2-fold in all pregnant women. The volume and enzymes of saliva in practically healthy individuals and pregnant women will be different from each other. The reliability of the difference from the control group numerator is the enzyme content, units /ml; in the denominator - isolated enzymes, units / ml / 5 min. A significant increase in the linolytic activity of saliva in pregnant women has been established. If in pregnant women with a physiological course lipolytic activity increased by approximately 1.6 times, then in pregnant women with gestosis it increased even more - by 1.8 times. An increase in pepsinogen content and flow rate **in saliva** was also observed. During pregnancy with a physiological course, the content of pepsinogen increased approximately 2 times, and in pregnant women with gestosis - 4 times. Therefore, we can conclude that during pregnancy the composition of

saliva is transformed. There is basically one directional change, an increase in the content and flow rate of the hydrolytic enzymes amylase, lipase and pepsinogen in saliva. At the same time, the volume of saliva does not change; the increase in flow rate is carried out mainly due to an increase in the activity and content of enzymes. When discussing the results obtained for each enzyme, it is clear that a large amount of amylase is secreted in the saliva of humans. The amylolytic activity of saliva is formed due to the secreted S -amylase itself and the secreted pancreatic P-amylase secreted from the blood and in the composition of saliva, most of its own S and a small part of P-amylase are secreted. With hyperamylasemia, the secretion and composition of recreated saliva increases R-amylase. Therefore, by the altered amylolytic activity of saliva, one can indirectly judge the activity of the pancreas. Lipase in saliva is mainly of a receptor nature, so it can be assumed that the increase in lipase secretion in pregnant women is the result of increased incretion of this enzyme by the pancreas.

REFERENCES

1. Obstetrics. University of California Handbook ed. K. Nisander . And Epopsa . M. 2009 703 p.

2. Kodirov Sh. K. Vutobol M. T. Hydrolases of blood and saliva during peciceptive irritation physiology j. USSR 1996 73(3). pp. 86-89.

3. Clinical lectures on obstetrics and gynecology, ed. Popa, A.I. Davydova, A.D. Belotserkotse . M.: Medicine, 2019, 379 pp.

4. Savelyeva G. M. R. I., Kashezheva A. 3. The importance of regional diagnostics and therapy of gestosis Akush . and gynecol . 1999 N 1 C. _ 73-76