

Sialosis

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Sialosis

The term “sialosis”, introduced by S. Pauch in 1956, is used to refer to changes in the reactive-dystrophic nature, which are manifested by an increase in the salivary glands or a violation of their function. The enlargement of glands can be observed without inflammatory and volumetric processes. The relatively large size of the salivary glands may have national and racial features. Unilateral enlargement of the gland is compensatory in the removal of the opposite gland. Sialosis can occur with endocrine disorders, liver cirrhosis, chronic alcoholism, etc.

Echographically, sialosis is more often manifested by an increase in parotid salivary glands, increased echogenicity without focal changes, and increased blood flow in them (Figures 1, 2).

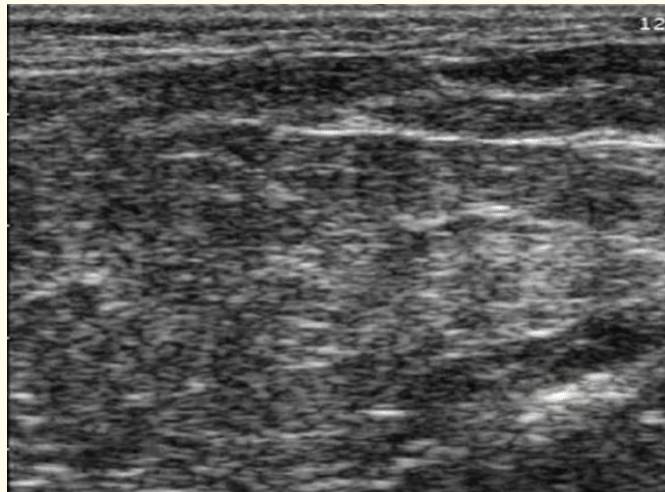


Figure 1: Sialosis of the parotid gland. Anteroposterior size of the gland is about 7 cm.

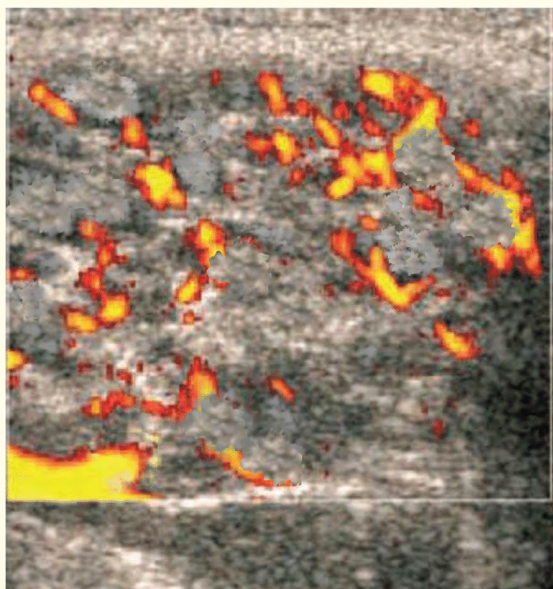


Figure 2: The same Registration in the regime of energy Doppler of enhanced intraparenchymal blood flow.

Acute Sialadenitis

Inflammatory diseases are the most common pathology of large salivary glands. The cause of the inflammatory process can be a bacterial and viral infection. Acute sialadenitis may develop due to otitis media, periodontitis of streptococcal or staphylococcal etiology.

In patients with HIV infection and salivary stone disease, conditions are created for the development of the inflammatory process in the salivary glands. In adults, submandibular salivary glands are more often involved in the process. In children, a virus infection of the parotid glands is quite common and the glands are affected from both sides.

Clinically acute sialadenitis is manifested by swelling of both the gland itself and surrounding tissues, painfulness at rest and palpation, hyperemia of the skin over the area of the inflamed salivary gland. In some cases, there is peripheral paresis of the facial nerve.

The echographic picture depends on the severity of the inflammatory process. In typical cases, in the acute stage of iron increases mainly due to thickness, echogenicity of its parenchyma decreases, painfulness is increased when the sensor is pressed. Due to edema of the parenchyma, visualization of the excretory ducts is improved. In the regime of color and energy Doppler, the number of vessels visualized increases. They look like scattered colored signals of different calibers. Often there is swelling of the soft tissues surrounding the inflamed gland. Acute sialadenitis is characterized echographically by thickening of the subcutaneous fatty tissue zone, a decrease in the clarity of tissue differentiation. In most cases, sialadenitis is accompanied by lymphadenopathy, which is manifested by an increase in lymph nodes due to their thickness, and they themselves acquire a rounded shape, without differentiation of the cortical and medullary layers. In the color and energy Doppler mode, the blood flow is easily recorded in the projection of the lymph node gates (Figures 1-9).

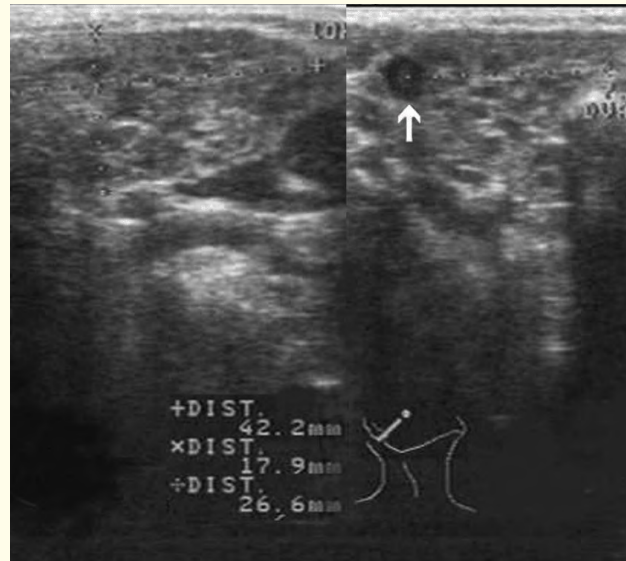


Figure 1: Acute sialoadenitis of parotid salivary glands. The gland is enlarged, the echostructure is coarse. An enlarged and altered lymph node (arrow) is visualized.

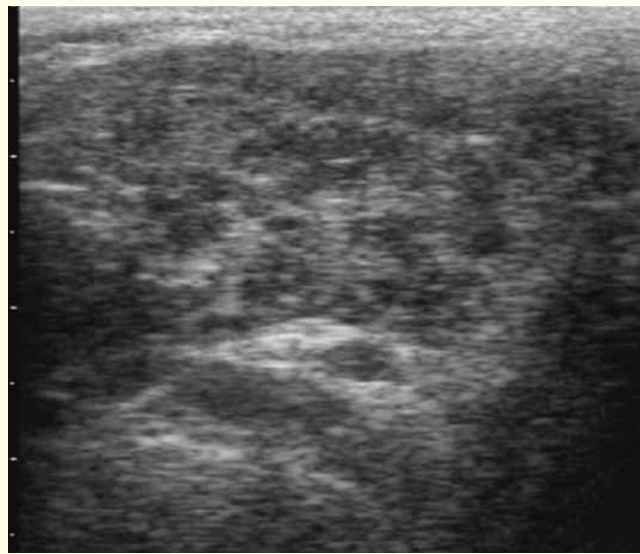


Figure 2: Acute sialadenitis of the left parotid salivary gland: its dimensions are significantly enlarged, large-cell echostructure.

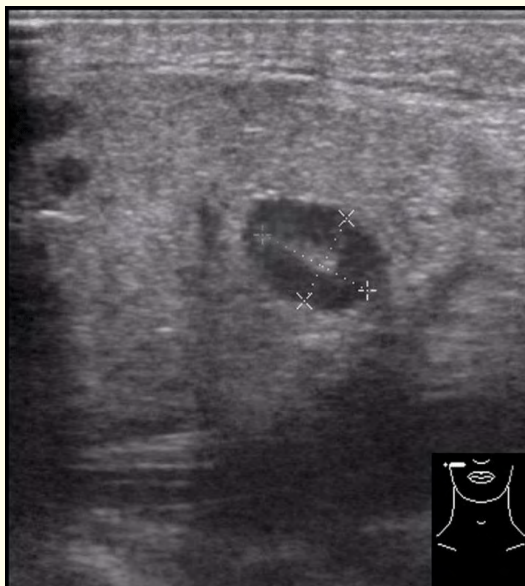


Figure 3: Acute sialadenitis of the right parotid salivary gland. Lymphadenopathy: a significantly enlarged intraparenchymal lymph node with a thickened and hypoechoic cortical layer is visualized.

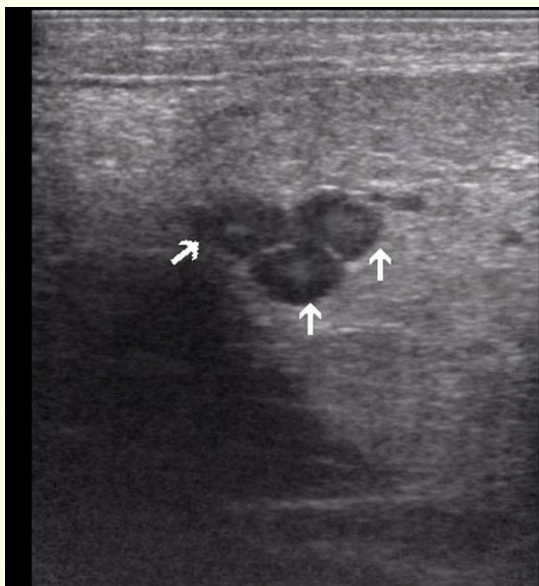


Figure 4: Acute sialadenitis of the left parotid salivary gland. Lymphadenopathy: altered compactly located lymph nodes with a hypoechoic cortical layer (arrows).

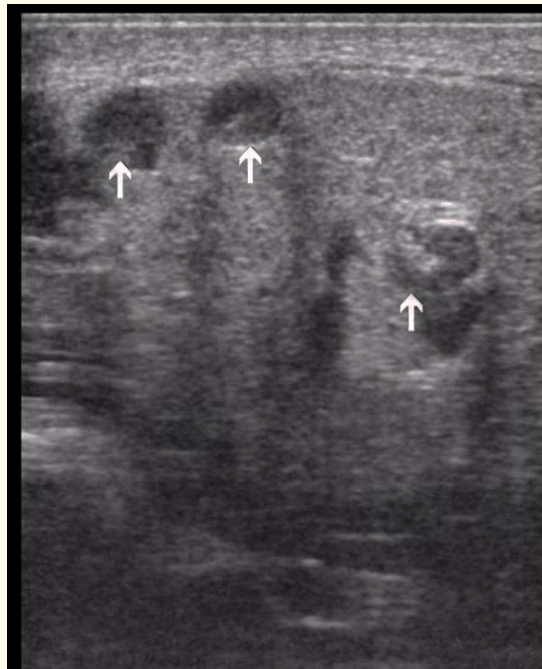


Figure 5: Acute sialadenitis of the left parotid salivary gland. Significant increase in the anteroposterior size of the gland. Lymphadenopathy: altered intraparenchymal lymph nodes with a hypoechoic cortical layer (arrows).



Figure 6: The same. Significant increase in the anteroposterior size of the gland. Deeply located areas are not clearly visible. Lymphadenopathy: different degrees of changes in the lymph nodes are determined - no image of the central part (left arrow) and a slight thickening of the cortical layer with a decrease in its echogenicity (right arrow).

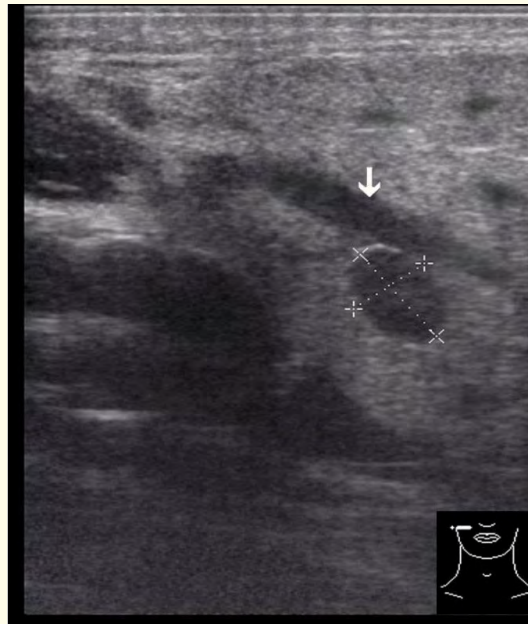


Figure 7: Acute sialadenitis of the right parotid salivary gland. The enlarged posterior-oblongal vein (upper arrow) is visualized. Lymphadenopathy: an enlarged intra-parenchymal hypoechoic node is seen without differentiation of the cortical and medullary layers.

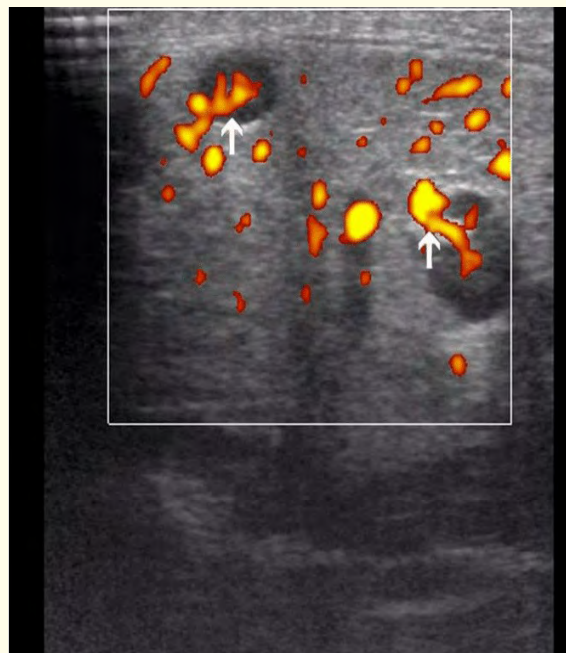


Figure 8: Acute sialadenitis of the left parotid salivary gland. Lymphadenopathy. In the energy Doppler regime, the intraparenchymal and intranasal blood flow (arrows).

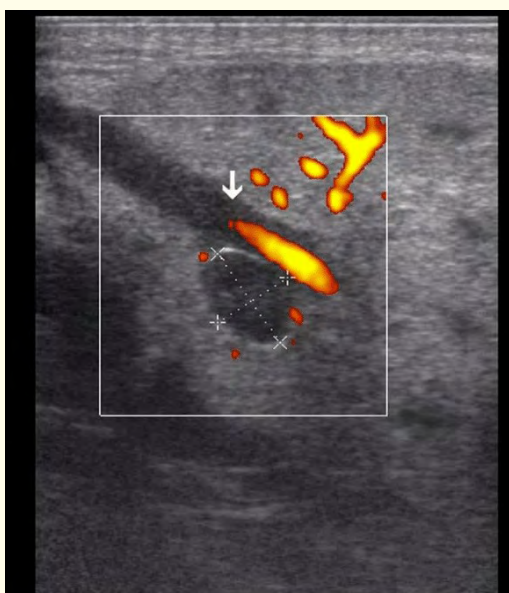


Figure 9: Acute sialadenitis of the right parotid salivary gland. In the regime of energy Doppler, a fragmentary blood flow is detected in the lumen of the enlarged supramaxillary vein (arrow). Deeper is defined the increased intraparenchymatous hypoechoic node without differentiation of the cortical and medullary layers.

One of the complications of acute sialadenitis is an abscess that can be represented by single and multiple foci. Compactly located areas of abscess formation can subsequently merge and form a large cavity. The echographic pattern of the abscess depends on the stage of its development. At first it looks like a local site of irregular shape, reduced or mixed echogenicity, without clear contours. As the abscess forms, the central zone of the affected area acquires an anechogenous character, gradually expanding, a pseudo-wall is formed from the surrounding intact tissue. In large areas of abscessing within the anechogenous region, inclusions of medium and high echogenicity can be determined. In color or energy Doppler studies within the abscesses, as a rule, color vascular signals are not determined (Figures 10-15).

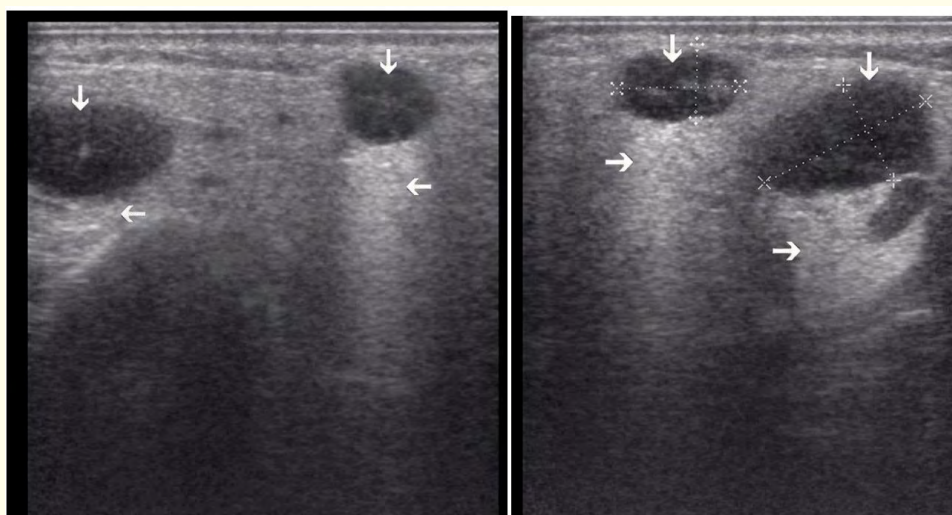


Figure 10, 11: Acute sialadenitis. The formation of abscesses in the form of sections of a round-oval shape without distinct contours of reduced echogenicity (vertical arrows) with the presence of dorsal pseudo-enhancement (horizontal arrows).

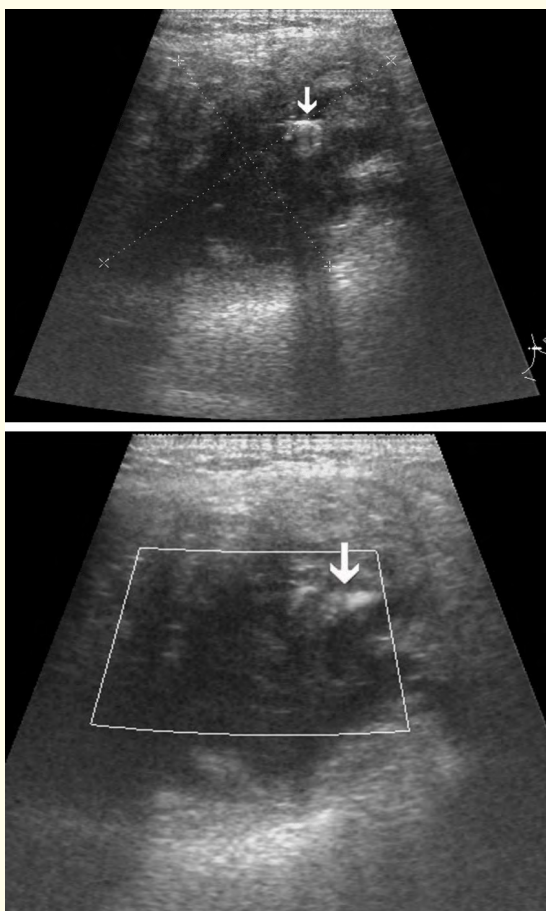


Figure 12, 13: Formation of an abscess on the background of stones of the parotid salivary gland.

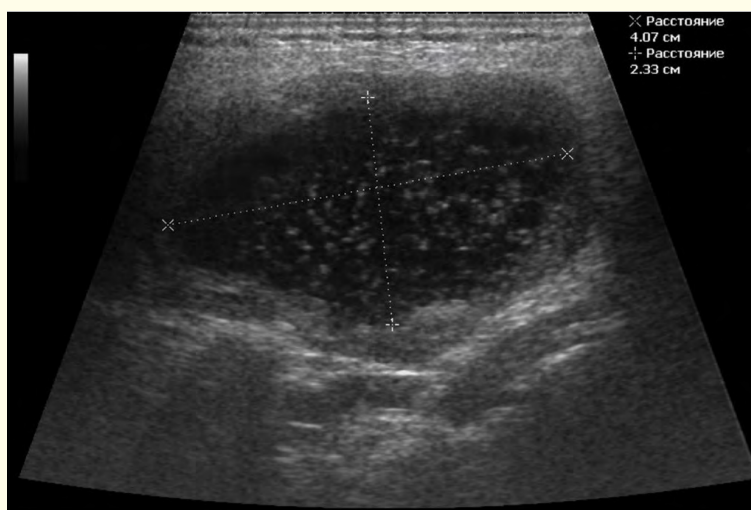


Figure 14: Abscess of the left parotid salivary gland. In the abscess cavity, multiple small hyperechoic inclusions.

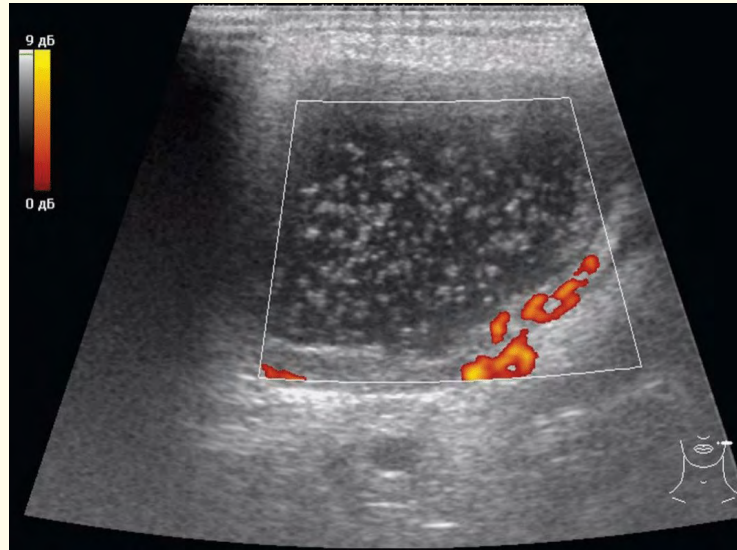


Figure 15: The same. When energy Doppler study in the abscess cavity blood flow is not determined.

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