PHENOTYPES OF METABOLIC DYSFUNCTION-ASSOCIATED FATTY LIVER DISEASE IN OVERWEIGHT INDIVIDUALS: NEW DIAGNOSTIC PARALLELS

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To evaluate the correlation between adipose tissue distribution and biochemical markers of "silent" steatosis to optimize screening protocols for individuals with a body mass index (BMI) exceeding 25 kg/m².

ABSTRACT

The modern medical paradigm considers hepatic steatosis not as an isolated liver condition but as a systemic response to metabolic imbalance. The transition to the concept of MAFLD (Metabolic Dysfunction-Associated Fatty Liver Disease) necessitates the search for "early predictors" of tissue damage. Traditional liver function tests (transaminases) frequently yield false-negative results in cases of occult inflammation. This highlights the clinical relevance of studying the hormonal activity of adipose tissue within the scope of primary care and family medicine.

Background. The modern medical paradigm considers hepatic steatosis not as an isolated liver condition but as a systemic response to metabolic imbalance. The transition to the concept of **MAFLD** (Metabolic Dysfunction-Associated Fatty Liver Disease) necessitates the search for "early predictors" of tissue damage. Traditional liver function tests (transaminases) frequently yield **false-negative** results in cases of **occult** inflammation. This highlights the clinical relevance of studying the hormonal activity of adipose tissue within the scope of primary care and family medicine.

Objective. To evaluate the correlation between adipose tissue distribution and biochemical markers of "silent" steatosis to optimize screening protocols for individuals with a body mass index (BMI) exceeding **25 kg/m²**.

Methods and Results. A clinical and laboratory profile analysis of overweight patients was conducted at the primary healthcare level. The evaluation included the calculation of metabolic indices and the determination of **adipokine** levels. The study confirmed that visceral obesity correlated with **ultrasonographic** signs of steatosis in **72%** of participants. It was established that elevated levels of **leptin** and **C-peptide** precede the increase in **ALT** and **AST** enzymatic activity. This suggests that hepatocyte metabolic stress begins long before biochemical shifts occur. Integrating the **Fatty Liver Index (FLI)** into the examination protocol improved the accuracy of risk prediction by **15%** during the reversible stages of the disease.

Conclusion. Excess body weight serves as a "trigger" for metabolic remodeling of the liver. Prioritizing the monitoring of insulin resistance and adipokine activity allows family physicians to shift from passive observation to proactive fibrosis prevention. Early detection of these parallels is critical for preventing premature disability in young patients..

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