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### CLINICAL AND DIAGNOSTIC CHARACTERISTICS OF COMPLICATED FORMS OF UPPER RESPIRATORY TRACT INFLAMMATORY DISEASES IN PREGNANT WOMEN WITH COVID-19

**Mirzoeva Mekhriniso Rizoevna,  
Ashurova Nargiza Abdullayevna.**  
Bukhara State Medical Institute

**Abstract:** *The ongoing evolution of the SARS-CoV-2 virus continues to present challenges in obstetric and otorhinolaryngological practice. Pregnant women represent a high-risk group due to physiological changes in the respiratory and immune systems[1]. This study aims to characterize the clinical and diagnostic features of complicated inflammatory diseases of the upper respiratory tract (URT) in pregnant patients diagnosed with COVID-19[2]. Our findings indicate that the synergy between viral infection and pregnancy-related mucosal edema significantly increases the risk of bacterial complications such as acute sinusitis and peritonsillar abscesses[3].*

**Introduction** The COVID-19 pandemic has highlighted the vulnerability of pregnant women to respiratory pathogens. Inflammatory diseases of the URT, while often viral in origin, frequently progress to complicated forms in the presence of COVID-19. In pregnancy, the anatomical and physiological shifts—such as capillary engorgement and decreased functional residual capacity—alter the traditional clinical presentation of URT infections, making early diagnosis and tactical management crucial to prevent maternal and fetal morbidity.

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**Methods** A comprehensive analysis was conducted on pregnant patients (n=45) diagnosed with COVID-19 and concomitant URT complications. Diagnostic protocols included clinical examination, anterior and posterior rhinoscopy, laboratory markers (CRP, Procalcitonin), and limited-exposure imaging where indicated. Data were analyzed to identify the most prevalent clinical phenotypes and diagnostic markers associated with unfavorable outcomes.

**Results** The study identified that 62% of the subjects exhibited complicated forms of rhinosinusitis. Key clinical markers included:

**Prolonged Febrile Syndrome:** Often masking the transition from viral to bacterial secondary infection.

**Atypical Pain Localization:** Facial pain and headaches were frequently reported but often attributed by patients to general COVID-19 malaise, leading to delayed ENT consultation.

**Endoscopic Findings:** Hyperemia and significant mucosal hypertrophy were more pronounced in the second and third trimesters.

Diagnostic challenges were noted in differentiating COVID-19 induced anosmia from obstructive hyposmia caused by purulent sinusitis. Laboratory findings showed a significant correlation between elevated IL-6 levels and the severity of URT inflammation.

**Discussion and Conclusion** The clinical course of URT inflammatory diseases in pregnant women with COVID-19 is characterized by a rapid transition to complicated forms. Standard diagnostic algorithms must be adapted to account for the "masking" effect of COVID-19 symptoms. Early interdisciplinary collaboration between obstetricians, infectious disease specialists, and ENT surgeons is vital. Implementing targeted diagnostic markers like C-reactive protein monitoring can assist in the timely

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identification of bacterial superinfections, thereby optimizing treatment tactics and minimizing systemic drug exposure for the fetus.

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