

## Clinical Characteristics and Treatment Outcomes of Patients Diagnosed with Chronic Histiocytic Intervillositis

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**Introduction.** Chronic histiocytic intervilllositis (CHI) is a rare placental lesion associated with an aberrant, non-infectious activation of the maternal immune response. This results in an accumulation of macrophages within the intervillous space of the placenta and is associated with adverse outcomes. This study aimed to describe clinical characteristics and outcomes of patients diagnosed with CHI in pregnancy.

**Methods.** This IRB-approved, retrospective study utilized data abstracted from electronic medical records at a single institution. Patients with at least one pregnancy diagnosed with CHI or related intervilllositis disorder confirmed by placental histopathology reports were included. Patients with intervilllositis of infectious origin were excluded.

**Results.** Nineteen patients were included, with the majority being white (89.5%, n = 17), with a median age of 27 years (range: 17-37) at the time of delivery. Ten (52.6%) patients had autoimmune disease, and 11 (57.9%) had hypertension. Among the 19 patients, there were 61 pregnancies. Nineteen (31.1%) were pregnancies in which CHI was initially diagnosed (index pregnancy), and 29 (47.5%) pregnancies occurred after the index pregnancy. Of these post-index pregnancies, 70% (7/10) were diagnosed with CHI based on available placental pathology. Twenty (38.2%) pregnancies reported complications, in which 63.2% (12/19) occurred during index pregnancies, and 28.6% (6/21) occurred during post-index pregnancies ( $p = 0.021$ ). Pregnancy loss occurred in 55% (11/20) of index pregnancies, and 40% (10/25) of post-index pregnancies.

**Conclusions.** Although our results are limited in generalizability due to a small sample size, there is a significant association between pregnancy complications and CHI diagnosis. Risk of pregnancy loss following CHI diagnosis is approximately 40%.