

GENETIC DISORDER REPORT

Genetic Disorder: Mitochondrial genetic inheritance disorders

Subclass: Leigh syndrome

----- PATIENT DETAILS -----

patient_age: 20

father_age: 45

mother_age: 45

gender: Female

genes_mother_side: Yes

inherited_father: Yes

maternal_gene: Yes

paternal_gene: Yes

blood_cell_count: 5.006834

white_blood_cell_count: 6000

respiratory_rate: 15

heart_rate: 72

parental_consent: None

follow_up: None

birth_effects: None

folic_acid_intake: None

blood_test_result: Not

No_of_previous_abortion: None

----- DESCRIPTION -----

Okay, let's break down Leigh Syndrome, a mitochondrial genetic disorder, in simple medical terms.

Leigh Syndrome: The Basics

- * **Overview:** Leigh syndrome is a severe, progressive neurological (brain and nerve) disorder that is caused by problems with the mitochondria in the body's cells. These cells are responsible for producing energy, and when they don't work properly, the body's organs and tissues don't get enough energy to function correctly.
- * **Causes:** The underlying cause is a problem with the *mitochondria*. Mitochondria are like tiny power plants inside each cell. They contain their own set of DNA. Mutations in this DNA can lead to problems with energy production. These mutations can be passed down from the mother (maternal inheritance) or can occur spontaneously.
- * **Symptoms:** Because the brain and other tissues are starved for energy, Leigh syndrome causes a variety of symptoms, including developmental delays, movement problems, breathing difficulties, feeding problems, vision problems, lactic acidosis, and cardiomyopathy.
- * **Risk Factors:** The main risk factor is having a family history of Leigh syndrome or other mitochondrial disorders.
- * **Treatment:** Unfortunately, there is no cure for Leigh syndrome. Treatment focuses on managing symptoms and providing supportive care. This may include:

 - * **Nutritional Support:** Special diets, feeding tubes, to ensure adequate nutrition.
 - * **Medications:**
 - * To control seizures
 - * To manage muscle spasms or dystonia
 - * To reduce lactate levels (a byproduct of energy production that can build up in the body)