GENETIC DISORDER REPORT
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Genetic Disorder: Mitochondrial genetic inheritance disorders
Subclass: Leigh syndrome

----- PATIENT DETAILS -----
patient_age: 15
father_age: 50
mother_age: 50
gender: Male
genes_mother_side: No
inherited_father: Yes
maternal_gene: No
paternal_gene: Yes
blood_cell_count: 5000
white_blood_cell_count: 7000
respiratory_rate: 18
heart_rate: 72
parental_consent: Yes
follow_up: Medium
birth_effects: Yes
folic_acid_intake: Yes
blood_test_result: Abnormal
No_of_previous_abortion: 1

----- DESCRIPTION -----
Okay, let's break down Leigh Syndrome, a type of mitochondrial disorder, in simple medical terms.

Leigh Syndrome: The Basics

*   **Overview:** Leigh syndrome is a severe neurological disorder that affects the central nervous syst

*   **Causes:** Leigh syndrome is caused by problems with the mitochondria. Mitochondria are like the

*   **Symptoms:** The symptoms of Leigh syndrome are varied and can appear at any point, but often s
    *   **Developmental delays or regression:** Loss of previously acquired skills (like sitting, crawling, or
    *   **Muscle problems:** Weakness, floppiness (hypotonia), stiffness (spasticity), or involuntary move
    *   **Movement problems:** Difficulty coordinating movements, balance issues (ataxia).
    *   **Breathing problems:** Irregular breathing patterns, difficulty breathing.
    *   **Feeding difficulties:** Problems swallowing or sucking.
    *   **Vision problems:** Optic atrophy (damage to the optic nerve).
    *   **Seizures:** Uncontrolled electrical activity in the brain.
    *   **Lactic acidosis:** Buildup of lactic acid in the body, which can cause nausea, vomiting, fatigue, a
    *   **Failure to thrive:** In infants, this means not gaining weight or growing at the expected rate.
    *   **Heart problems:** Cardiomyopathy (weakening of the heart muscle)

*   **Risk Factors:**
    *   **Family history:** Having a family history of Leigh syndrome or other mitochondrial disorders is th
    *   **Maternal inheritance:** If the mother carries a mitochondrial gene mutation, there is a high chan

*   **Treatment:** Unfortunately, there is no cure for Leigh syndrome. Treatment focuses on managing s
    *   **Medications:**
        *   To control seizures
        *   To reduce lactic acid levels
        *   To manage movement disorders
        *   Vitamins and supplements (like thiamine, coenzyme Q10, creatine, and carnitine)