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

----- PATIENT DETAILS -----
patient_age: 39
father_age: 65
mother_age: 59
gender: Female
genes_mother_side: Yes
inherited_father: Yes
maternal_gene: Yes
paternal_gene: Yes
blood_cell_count: 6.76619
white_blood_cell_count: 4.64949
respiratory_rate: 49
heart_rate: 71
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 type of mitochondrial genetic inheritance disorder, in simple

Leigh Syndrome: A Problem with Energy Production in the Brain

*   **Overview:** Imagine your brain cells need tiny power plants (mitochondria) to function. Leigh syndr

*   **Causes:** Leigh syndrome is usually caused by a genetic mutation (a change) in the DNA that affe

    *   **Mitochondrial DNA (mtDNA):** This DNA is passed down *only from the mother*. If the mother
    *   **Nuclear DNA:** This DNA is found in the cell's nucleus and is inherited from both parents. Muta

    Essentially, these mutations prevent the mitochondria from efficiently converting food and oxygen int

*   **Symptoms:** Symptoms can vary, even within the same family, but commonly include:

    *   **Early signs:** Often appear in infancy or early childhood. These might include poor sucking abi
    *   **Movement problems:** Difficulty with coordination, balance, muscle weakness (hypotonia), and i
    *   **Developmental delays:** Slower than normal development of motor skills (crawling, walking), sp
    *   **Respiratory problems:** Breathing difficulties, including rapid breathing or periods of stopped br
    *   **Seizures:** Uncontrolled electrical activity in the brain.
    *   **Vision problems:** Nystagmus (involuntary eye movements), optic atrophy (damage to the optic
    *   **Heart problems:** Cardiomyopathy (enlarged or weakened heart muscle).
    *   **Lactic acidosis:** A buildup of lactic acid in the body, which can cause nausea, vomiting, abdom

*   **Risk Factors:** The main risk factor is having parents who carry a genetic mutation associated with

*   **Treatment:** There's no cure for Leigh syndrome. Treatment focuses on managing symptoms and

    *   **Nutritional support:** Special diets, feeding tubes (if needed), and vitamin supplements (like thia
    *   **Medications:** To control seizures, reduce lactic acidosis, or manage other specific symptoms