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

----- PATIENT DETAILS -----
patient_age: 20
father_age: 54
mother_age: 48
gender: Female
genes_mother_side: Yes
inherited_father: Yes
maternal_gene: Yes
paternal_gene: Yes
blood_cell_count: 2000
white_blood_cell_count: 7.8582
respiratory_rate: 13
heart_rate: 75
parental_consent: None
follow_up: None
birth_effects: None
folic_acid_intake: None
blood_test_result: Yes
No_of_previous_abortion: None

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

Leigh Syndrome: In Simple Medical Terms

Overview:

Leigh Syndrome is a severe, progressive brain disorder that typically appears in infancy or early childho

Causes:

* **Mitochondrial Dysfunction:** The main problem is with the mitochondria, which are like tiny power p
* **Genetic Mutations:** The most common cause is a mutation (a change) in a gene that affects how
* **Inheritance Patterns:**
  * **Mitochondrial Inheritance:** Mitochondria have their own DNA. If the mother has a mutation in
  * **Nuclear Inheritance:** Some mutations that cause Leigh Syndrome are in genes located in the c
    * **Autosomal Recessive:** Both parents must carry one copy of the mutated gene for the child t
    * **X-linked:** The mutated gene is on the X chromosome. (More common in males).

Symptoms:

The symptoms can vary, but often include:

* **Developmental Delays:** Slower than normal progress in reaching milestones like sitting, crawling
* **Loss of Motor Skills:** Problems with movement, balance, and coordination. This can manifest as
* **Breathing Problems:** Irregular breathing patterns, sometimes with periods of rapid breathing (hyp
* **Feeding Difficulties:** Difficulty sucking, swallowing, or gaining weight. Vomiting is also common.
* **Vision Problems:** Nystagmus (involuntary eye movements), optic atrophy (damage to the optic ne
* **Seizures:** Can occur in some cases.
* **Lactic Acidosis:** A buildup of lactic acid in the blood, which can cause nausea, vomiting, fatigue,
* **Failure to Thrive:** Not gaining weight and growing as expected