



Rare Genetic Disorder Identified in Gujarat



First Confirmed Case in India

Doctors at a tertiary care hospital in Ahmedabad have diagnosed India's first confirmed case of Bardet-Biedl Syndrome (BBS), a rare genetic disorder. The patient is a 9-year-old boy who presented with multiple systemic complications.



What is Bardet-Biedl Syndrome?

- A rare inherited disorder caused by mutations affecting ciliary function.
 - Belongs to the group of ciliopathies, which impact several organs.
 - Global prevalence is estimated at 1 in 100,000–160,000 births, making it extremely rare.
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Clinical Presentation in the Child

The child was brought to the hospital with:

- Obesity unresponsive to lifestyle changes.
 - Progressive vision loss due to retinal degeneration.
 - Polydactyly (extra fingers).
 - Kidney abnormalities with declining function.
 - Learning difficulties and developmental delays.
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Diagnosis & Genetic Confirmation

- Initial clinical suspicion was based on the combination of obesity, vision impairment, and polydactyly.
 - Whole Exome Sequencing confirmed pathogenic mutations consistent with Bardet-Biedl Syndrome.
 - Multidisciplinary evaluation involving ophthalmology, nephrology, endocrinology, and genetics was carried out.
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Treatment & Management

- No curative treatment exists currently.
 - Patient is being managed with:
 - Low-vision aids and ophthalmic follow-up.
 - Dietary interventions to control obesity.
 - Nephrology support for kidney monitoring.
 - Developmental therapy for learning challenges.
 - Family provided with genetic counseling to understand inheritance patterns and future planning.
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Significance for India

- The first confirmed case highlights the importance of genetic testing in rare diseases.
- Opens opportunities for research collaborations in India on ciliopathies.
- The hospital plans to maintain a registry of rare genetic disorders for better understanding and management.