

Case Report of Acute Flaccid Paralysis in Gaza City, Palestine: An increasingly widespread and deadly unexplained phenomenon

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INTRODUCTION

Acute flaccid paralysis (AFP) is a term used to describe any syndrome of acute motor weakness due to loss of anterior horn cells in the spinal cord in the setting of infectious or inflammatory conditions.

Autoimmune causes include Guillain-Barré syndrome (a disorder where the immune system attacks the nerves) and transverse myelitis (inflammation of the spinal cord). Classically, AFP was due to poliomyelitis.

In 2024, an outbreak of vaccine-derived poliovirus type 2 was detected in the wastewater in Gaza, and later diagnosed in a 10 month old child. No further cases have been confirmed but several cases of acute flaccid paralysis have presented to hospitals throughout the strip.



Image 1: JM intubated in the ICU and communicating only with eye blinking

CASE DESCRIPTION

JM is an 8 year old 19kg girl admitted to the PICU on 15/4/2025 with acute respiratory failure in the setting of acute progressive ascending paralysis. Preceding history was of a rapidly progressive inability to stand or walk over 24 hours. Differential diagnosis included Guillaume Barré Syndrome so IVIg 2g/kg was administered over two days to no avail. CT brain/spine were normal. Two spaced LPs with 3 days in between showed normal cell counts with no CSF protein elevation. Two stool samples were sent to the WHO to rule out polio and are negative. JM remained intubated on mechanical ventilation. 15 days into her course a tracheostomy was performed to avoid subglottic stenosis. She undergoes daily whole body physical therapy, with a focus on chest muscles to improve respiratory effort. She tolerates hours, and sometimes days, off the ventilator. She continues to have swallowing difficulties in the setting of bulbar palsy and ultimately underwent gastrostomy tube insertion for feeding. There are no cognitive deficits. She is fully conscious and communicates with head and lip movements.

DISCUSSION

This was the third case of acute flaccid paralysis in this 6 bed PICU in the observation period of two months, all presenting as rapidly progressive paralysis over 1-3 days. The first case, a 6 year old girl, died of aspiration. The second case, a 5 year old girl, responded to IVIg and was discharged from the ICU after one week with ongoing weakness. Stool samples were sent to the WHO for all cases and are negative for polio. All 3 cases had lumbar punctures that showed no cyto-albuminologic dissociation that would have been suggestive of Guillain-Barré Syndrome (GBS). Several similar cases have been described in the two other hospitals with PICUs in Gaza. There is still no definite diagnosis for these cases, particularly given limited diagnostic capabilities in the context of a systemically destroyed healthcare system. The majority of cases are rapidly progressive and involve the respiratory muscles, rather than a more progressive ascending paralysis suggestive of GBS. Given the living conditions, there is significant concern that these cases could be due to an unrecognized pathogen or toxin. Surveillance and diagnostic support from international organizations is essential to recognize the underlying cause(s) of this outbreak and prevent further cases.

SUBSEQUENT CONCERN FOR POTENTIAL OUTBREAK OF GBS (AFM):

In the months after this abstract was submitted and the WHO was informed of the concerning observation, the Ministry of Health (MoH) in Gaza and the World Health Organization (WHO) sounded alarms of rising cases of what was reported as Guillain-Barré Syndrome (GBS).

- **Cases:** The MoH reported total of **106 GBS cases** over the 3 month period of June 1st and September 5th 2025 across the Gaza governorates, peaking in July 2025.
- **Diagnostics:** Only **some patients received cerebrospinal fluid (CSF)** and electrophysiological (EMG) examinations, so the **diagnosis was clinical**, although in discussions with doctors on the ground, most of the paediatric cases did not present as ascending paralysis, but rather **a rapid paralysis involving respiratory muscles**. 15 stool samples from affected patients were tested using multiplex PCR, of which 9 (60%) were positive for **Campylobacter** Jejuni and 10 (66.6%) were positive for **Shigella** sp. These high prevalence of enteric bacteria reflects the widespread dire sanitary conditions, overcrowding, malnutrition, and weakened immunity.
- **Treatment:** This unfortunately coincided with a **rupture of IV immunoglobulin (IVIg)** stocks and the complete aid blockade.
- **Case fatality:** Many cases died during this blockade with no formal diagnostics or ability to administer IVIg – **case fatality rate 10.4%**.

“Amid the ongoing humanitarian crisis in Gaza, a severe and alarming surge of Guillain-Barré Syndrome (GBS) cases has erupted. The increase in cases of this usually rare neurological disorder is placing an immense strain on a devastated healthcare system, leading to preventable deaths and lifelong disability.”



Powerless in Gaza: Guillain-Barré Syndrome

Sources: [Health Cluster](#), [WHO](#) • Posted: 14 Oct 2025 • Originally published: 14 Oct 2025

INDEPENDENT

The rare, deadly condition affecting children in Gaza

Alex Croft
Sunday 24 August 2025 09:32 BST

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ETHICS STATEMENT

This study fulfils the exemption criteria set by the MSF ERB and was approved for submission by MAP-UK.

