

SARS-CoV-2-related polyradiculitis during pregnancy

Dear Editor,

Regarding Sharma *et al.*'s article, we disagree with the notion that the index case is the first of a pregnant female developing severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)-related Guillain-Barré syndrome (GBS) (SC2rGBS) during pregnancy.^[1] SC2rGBS in pregnant females has been reported previously in at least five patients [Table 1].^[2-7] There is also one report about a female developing SC2rGBS during puerperium [Table 1].^[7] GBS during pregnancy has also been reported after SARS-CoV-2 vaccination.^[8]

Furthermore, the diagnosis of GBS remains questionable. First, cerebrospinal fluid (CSF) examinations did not show 'dissociation cytoalbuminiqué', which is why the Brighton criteria level A for diagnosing GBS was not met. Second, muscle weakness showed proximal predominance in the upper as well as lower limbs, which is unusual for GBS. GBS usually presents with distally predominant paraparesis or quadriparesis.^[9] Third, quadriparesis started one day before coughing, suggesting that SARS-CoV-2 was not responsible for GBS. Fourth, recovery of abnormal nerve conduction was not documented.

There is no mention of whether CSF was tested for SARS-CoV-2. Though only rarely reported, SC2rGBS can go along with a positive Polymerase chain reaction (PCR) for SARS-CoV-2 in the CSF. Did the CSF test positive for cytokines, chemokines, glial factors, 14-3-3, intrathecal immunoglobulins, neopterin, neurofilament light chain, tau, and Aβ1-42, as previously reported?^[10]

Table 1: Females with SARS-CoV-2-related GBS developing during pregnancy or shortly after delivery reported in the literature until May 2023

Age	LIO	GBS subtype	Therapy	Outcome	Reference
22	nr	AMAN	IVIG	PR	[index case]
29	9d	AIDP	IVIG	PR	[2]
22	7d	AMSAN	IVIG	PR	[3]
36	6w	GBS + CNI	IVIG	PR	[4]
30	16d	GBS + CNI	nr	nr	[5]
31	1d	GBS + CNI	IVIG	PR	[6]
34	9d	AMSAN	IVIG	PR	[7]*

AMAN: Acute, motor axonal neuropathy, AMSAN: Acute, motor and sensory axonal neuropathy, CNI: Cranial nerve involvement, IVIG: Intravenous immunoglobulins, LIO: Latency between SARS-CoV-2 infection and onset of GBS, nr: Not reported, PR: Partial recovery, *Shortly after delivery

Was tachypnoea due to affection of respiratory muscles in GBS, COVID-19-pneumonia, or both? Knowing whether the respiratory muscles are involved is crucial as these patients often require mechanical ventilation. Impairment of the respiratory muscles could be assessed by electromyography of the diaphragm or the paraspinal muscles.

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Conflicts of interest

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