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Under the aegis of Department of Neurology

IMS-BHU



"When the Worm Crawls North: A Rare Tale of Nerve and Gut"

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Background:

- **Strongyloides stercoralis is a soil-transmitted helminth 4**
- **Neurological complications, particularly myeloneuropathy, are rare**
- **Usually associated with disseminated disease in immunocompromised individuals**

Case description:

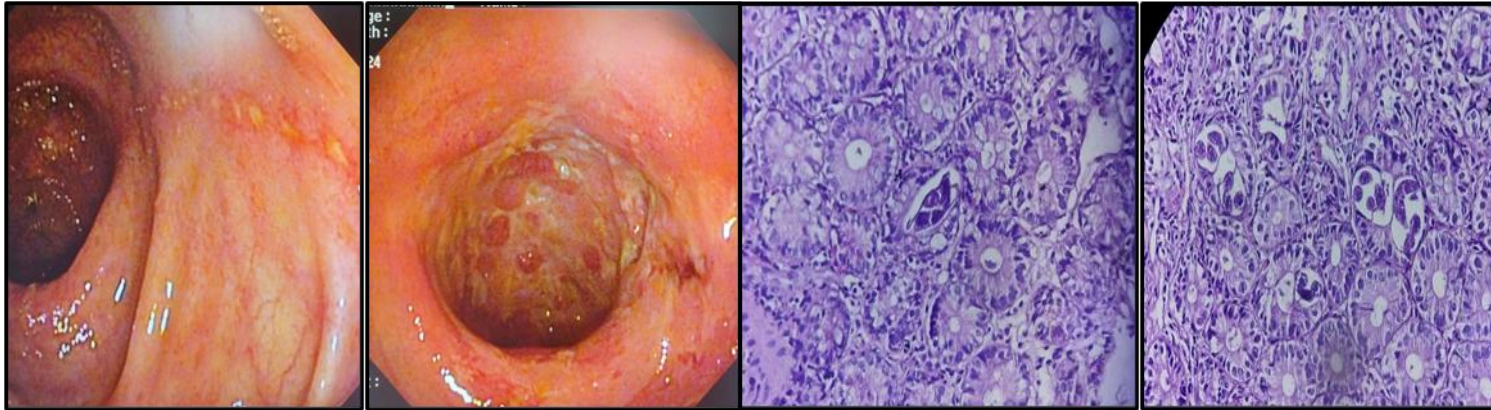
- **A 36-year-old previously healthy male presented with progressive bilateral lower limb weakness over two months. There were no sensory, cranial nerve, or autonomic symptoms**
- **Neurological examination revealed bilateral lower limb hypotonia, hyporeflexia, wasting, and pyramidal signs with a Medical Research Council (MRC) sum score of 42/60.**
- **NCS showed motor axonopathy.**
- **CSF revealed lymphocytic pleocytosis and elevated protein.**
- **MRI of the dorsolumbar spine was normal.**
- **Colonoscopy showed deep ulcers; biopsies revealed nonspecific colitis.**
- **Duodenal biopsy and stool examination identified Strongyloides larvae.**
- **Serology for Strongyloides (IgG/IgM) was positive.**
- **Routine labs showed hypoalbuminemia, mildly low copper, and raised inflammatory markers.**

Diagnosis:

- **Myeloneuropathy due to Strongyloidosis**

Treatment and follow up:

- **Ivermectin was administered at 200 mcg/kg/day for 14 days**
- **On follow-up, the patient had full neurological recovery (MRC 60/60) with normalized CSF parameters.**



- **Colonoscopy** revealed multiple large deep ulcers of varying size (1.5 cm to 2cm) seen in the rectum, sigmoid colon up to caecum. Ulcer base covered with white exudates. Margins are irregular. Few clean based superficial ulcers of varying (5 to 6 mm) sized noted. Surrounding mucosa was oedematous and erythematous with patchy loss of vascularity noted
- **D2 biopsy (HPE)** showed larva of Strongyloides

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Patient ID: 29.11.2017
Name: DASH RANJAN
Ref By: RIN PPD NMS SIB
Physician:

Gender: Male
Age: 34 Years 0 Months
Height/Weight: 0 cm/0 kg

Date: 29-Nov-2014

Motor Nerve Studies
UPPER LIMB

Nerve: Right N1: Median R1: APB N2: R2:

Site	Lat1 (ms)	Lat2 (ms)	Dist (ms)	Amplitude (mV)	Area (mV)	Segment	Dist (ms)	Dist (ms)	NCV (m/s)
Wrist	5.14	11.10	8.44	8.5 mV	10.0 mV	ADP - MCP	5.14	11.10	51.55
Elbow	5.11	11.41	6.30	7.5 mV	10.0 mV	Elbow - ADP	5.11	11.41	51.55
Forearm	14.10	13.45	8.27	7.5 mV	10.0 mV	Forearm - Elbow	14.10	13.45	51.55

Nerve: Left N1: Median R1: APB N2: R2:

Site	Lat1 (ms)	Lat2 (ms)	Dist (ms)	Amplitude (mV)	Area (mV)	Segment	Dist (ms)	Dist (ms)	NCV (m/s)
Wrist	5.44	11.10	8.44	7.5 mV	10.0 mV	ADP - MCP	5.44	11.10	51.55
Elbow	5.44	11.10	8.44	7.5 mV	10.0 mV	Elbow - ADP	5.44	11.10	51.55
Forearm	14.10	13.45	8.27	7.5 mV	10.0 mV	Forearm - Elbow	14.10	13.45	51.55

Nerve: Right N1: Ulnar R1: ADM N2: R2:

Site	Lat1 (ms)	Lat2 (ms)	Dist (ms)	Amplitude (mV)	Area (mV)	Segment	Dist (ms)	Dist (ms)	NCV (m/s)
Wrist	2.70	10.10	7.40	11.5 mV	11.5 mV	ADM - MCP	2.70	10.10	51.55
Elbow	2.70	10.10	7.40	11.5 mV	11.5 mV	Elbow - ADM	2.70	10.10	51.55
Forearm	14.10	13.45	8.27	7.5 mV	10.0 mV	Forearm - Elbow	14.10	13.45	51.55

Nerve: Left N1: Ulnar R1: ADM N2: R2:

Site	Lat1 (ms)	Lat2 (ms)	Dist (ms)	Amplitude (mV)	Area (mV)	Segment	Dist (ms)	Dist (ms)	NCV (m/s)
Wrist	2.70	10.10	7.40	11.5 mV	11.5 mV	ADM - MCP	2.70	10.10	51.55
Elbow	2.70	10.10	7.40	11.5 mV	11.5 mV	Elbow - ADM	2.70	10.10	51.55
Forearm	14.10	13.45	8.27	7.5 mV	10.0 mV	Forearm - Elbow	14.10	13.45	51.55

LOWER LIMB

Nerve: --- N1: TIBIAL + PERONEAL (RT) R1: RT (AHB + EDB) N2: TIBIAL + PERONEAL (LT) R2: LT (AHB + EDB)

Site	Lat1 (ms)	Lat2 (ms)	Dist (ms)	Amplitude (mV)	Area (mV)	Segment	Dist (ms)	Dist (ms)	NCV (m/s)
RT ANKLE PTH	5.83	15.42	9.59	1.4 mV	1.4 mV	RT ANKLE (PTH) - RT ANKLE (PTH)	5.83	15.42	43.43
RT ANKLE PTH	14.10	13.45	8.27	1.4 mV	1.4 mV	RT ANKLE (PTH) - RT ANKLE (PTH)	14.10	13.45	43.43
RT ANKLE CPH	5.83	15.42	9.59	1.4 mV	1.4 mV	RT ANKLE (CPH) - RT ANKLE (CPH)	5.83	15.42	43.43
RT ANKLE CPH	14.10	13.45	8.27	1.4 mV	1.4 mV	RT ANKLE (CPH) - RT ANKLE (CPH)	14.10	13.45	43.43
LT ANKLE PTH	6.42	16.01	9.59	1.4 mV	1.4 mV	LT ANKLE (PTH) - LT ANKLE (PTH)	6.42	16.01	43.43
LT ANKLE PTH	14.10	13.45	8.27	1.4 mV	1.4 mV	LT ANKLE (PTH) - LT ANKLE (PTH)	14.10	13.45	43.43
LT ANKLE CPH	6.42	16.01	9.59	1.4 mV	1.4 mV	LT ANKLE (CPH) - LT ANKLE (CPH)	6.42	16.01	43.43
LT ANKLE CPH	14.10	13.45	8.27	1.4 mV	1.4 mV	LT ANKLE (CPH) - LT ANKLE (CPH)	14.10	13.45	43.43

Discussion:

This case demonstrates an unusual manifestation of strongyloidiasis as myeloneuropathy in an immunocompetent host. The pathophysiology may involve immune-mediated mechanisms or toxin-mediated neuronal injury, given the rarity of larvae detection in CSF.

Conclusion:

Strongyloidiasis should be considered in the differential diagnosis of unexplained myeloneuropathy, even in immunocompetent patients. Early diagnosis and treatment are crucial to prevent irreversible neurological damage.