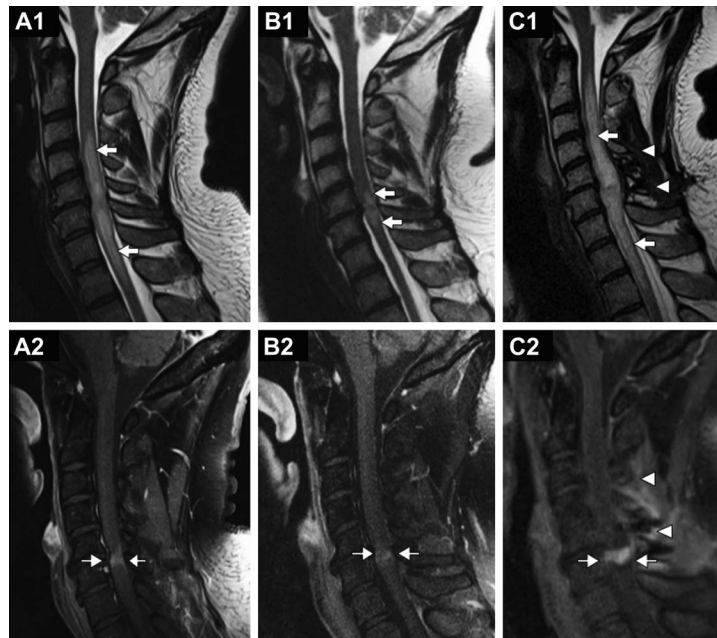


Teaching NeuroImages: “Pancake-like” gadolinium enhancement suggests compressive myelopathy due to spondylosis

Eoin P. Flanagan,
MB.BCh
Richard W. Marsh, MD
Brian G. Weinschenker,
MD

Correspondence to
Dr. Weinschenker:
weinb@mayo.edu

Figure MRI cervical spine (sagittal T2 [A1, B1, and C1] and T1 post gadolinium [A2, B2, and C2])



Hyperintense T2 signal 12 months (A1) and 2 months (B1) prior to surgery (thick white arrows) accompanied by flat “pancake-like” enhancement at the site of maximal stenosis (A2 and B2, thin white arrows). Changes persist/worsen (C1 and C2) 6 months after decompression surgery (white arrowheads) despite clinical improvement.

A 41-year-old man developed progressive bilateral hand weakness and spastic paraparesis. MRI demonstrated cord edema and “pancake-like” gadolinium enhancement (figure). Inflammatory/neoplastic causes were investigated and not found. He continued to deteriorate despite empiric corticosteroid treatment. One year later, cervical decompression stabilized his clinical condition but intramedullary T2 signal worsened. Persistent enhancement raised concern about alternative diagnoses.

“Pancake-like” enhancement due to focal disruption of the blood–brain barrier at the point of maximal stenosis¹ strongly suggests cervical stenosis² as the cause of the myelopathy. Enhancement may persist after successful surgery.¹ Inflammatory/neoplastic myelopathies have long rostrocaudal segments of enhancement.² Recognition of this radiologic feature may prevent subsequent disability.

AUTHOR CONTRIBUTIONS

Dr. Flanagan was involved in drafting and revising the manuscript for content, including medical writing for content, analysis and

interpretation of data, and acquisition of data. Dr. Marsh was involved in revising the manuscript for content and analysis and interpretation of data. Dr. Weinschenker was involved in drafting and revising the manuscript for content, including medical writing for content, analysis and interpretation of data, acquisition of data, and study supervision.

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Eoin P. Flanagan, Richard W. Marsh and Brian G. Weinshenker

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