

Cerebral band heterotopia

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Section: Neuroradiology

Imaging Technique: MR

Case Type: Clinical Cases

Authors: R.N.Sener

Patient: 4 years, female

Clinical History:

Psychomotor retardation, and seizures.

Imaging Findings:

Presented with moderate mental and motor retardation. Seizures were noted. An MR imaging examination was undertaken on a 0.5 Tesla unit. T1 and T2-weighted images were acquired.

Discussion:

Band heterotopia is a rare type of neuronal migration disorders. A ribbon of heterotopic neurons is located circumferentially beneath the cerebral cortex. Incomplete types of band heterotopia can also occur. On imaging, the overlying cortex may appear normal, atrophic or it may show dysplastic areas. In diffuse band heterotopia such as in the current case, the atrophy-like pattern of the overlying cortex, could have resulted from a diffuse underdevelopment interfering with the abnormal process leading to band heterotopia. Therefore the term 'hypoplasia' may be more descriptive for cortical changes. Patients with band heterotopia may have serious symptoms such as psychomotor retardation, and seizures. Patients with relatively mild clinical presentations with normal social adaptation have also been reported. Such variations seem to be related to the condition of the overlying cortex.

Differential Diagnosis List: Band heterotopia

Final Diagnosis: Band heterotopia

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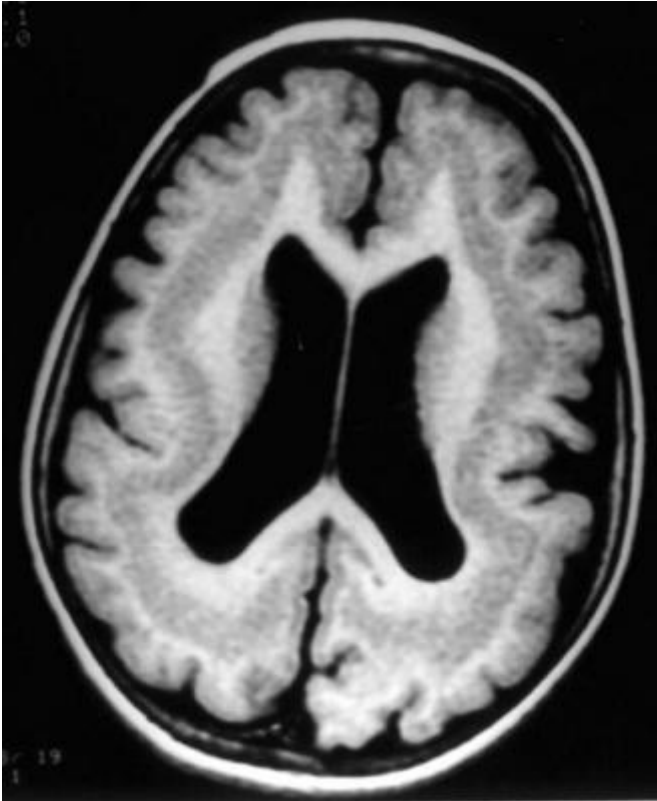
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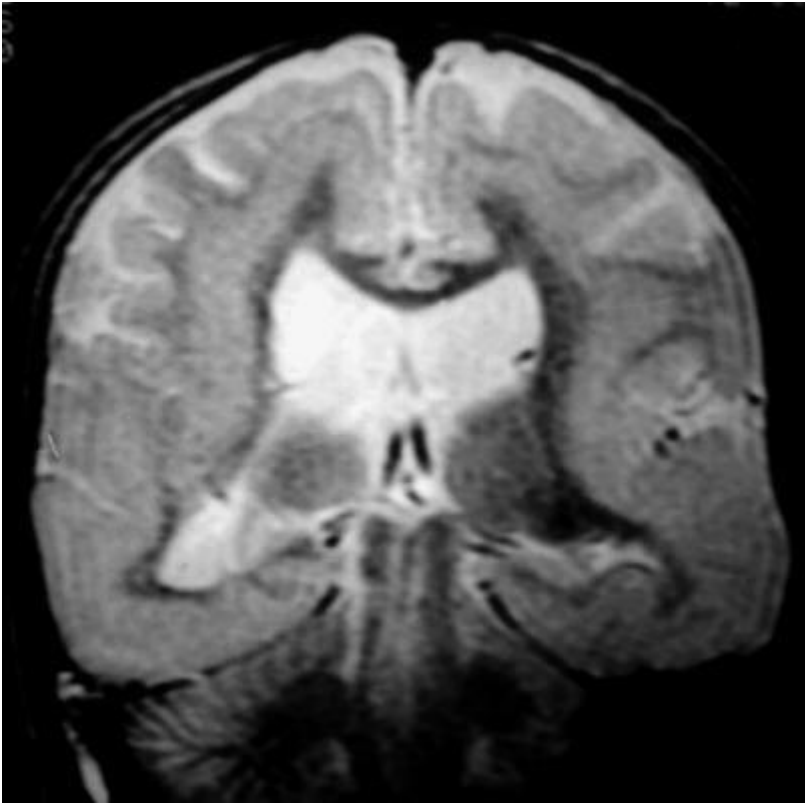
Figure 1

a



Description: T1-weighted image reveals a complete band of heterotopic gray matter, also referred to as double cortex or laminar heterotopia. Note diffuse hypoplasia of the overlying cortex. **Origin:**

b



Description: T2-weighted coronal image reveals similar changes, less detailed than the T1-weighted image. The bulbous appearance of the lateral ventricles is due to diminished white matter content.

Origin: