

A Nonenhancing World Health Organization Grade II Intramedullary Spinal Ependymoma in the Conus: Case Illustration and Review of Imaging Characteristics

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Abstract

Spinal ependymomas comprise ~60% of all intramedullary tumors in adults. Ependymomas demonstrate distinct imaging features, such as central location within the spinal cord, symmetrical expansion, intra- and extratumoral cysts, hemosiderin caps, and strong enhancement on contrast-injected, T1-weighted magnetic resonance (MR) imaging.

In adults, most ependymomas are myxopapillary, and in children, most are nonmyxopapillary.

In general, nonmyxopapillary or classic are hyperintense on T2- and hypointense on T1-weighted MR imaging, but whereas the signal intensity on T1 and T2 is variable, homogeneous contrast enhancement is usually a characteristic finding. Here, the authors provide an overview on spinal ependymomas with an emphasis on imaging characteristics and morphological background and present the case of a World Health Organization grade II ependymoma in the conus that did not enhance. Interestingly, the tumor contained a large hemorrhagic cyst. Just as hemorrhagic metastatic tumors may not enhance, a hemorrhagic ependymoma may likewise not enhance after administration of contrast agent. Thus, the differential diagnosis of a nonenhancing intramedullary lesion in the conus should include ependymoma, particularly if there is concomitant hemorrhage.

Keywords

intramedullary - spinal cord - tumor - ependymoma - MR imaging

在脊髓圓椎內一個不明顯的世界衛生組織第二級脊髓髓內室管膜瘤：案例說明和成像學特徵的回顧

脊髓室管膜瘤佔所有成年患者的髓內腫瘤大約 60%。室管膜瘤表現出明顯的成像特徵，例如脊髓內的中央位置，左右對稱擴展，腫瘤內和腫瘤外的囊腫，含鐵血黃素帽，和注射顯影劑後，在 T1 磁振加權造影（MR）成像中的信號明顯增加。

在成人中，大部份室管膜瘤都是黏液乳頭性的，而在兒童中，大部分都是非黏液乳頭性的。

一般而言，非黏液乳頭性及典型室管膜瘤在 T2 加權成像中呈高信號，而在 T1 加權成像中呈低信號，但是信號的強弱是可變的，單一顯影強化通常會發現當中的特性。在這裡，作者綜述了對脊髓室管膜瘤的成像特徵及形態背景，並描述一個在脊髓圓椎內不明顯的世界衛生組織第二級脊髓髓內室管膜瘤。有趣的是，腫瘤包含了大量的出血性囊腫。正如一個不明顯的出血性轉移瘤，在注射顯影劑後出血性室管膜瘤可能同樣不會明顯看到。因此，一個不明顯的脊髓髓內病變，特別是如果有伴隨出血，它的鑑別診斷應包括室管膜瘤。