

Hidradenitis Suppurativa Presenting with a Posterior Neck Mass: A Case Report¹

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Hidradenitis suppurativa is a rare disorder that is characterized by recurrent chronic skin infections and the formation of sinus tracts and considerable scarring. A 37-year-old man presented with a hard posterior neck mass. Multiple pus-producing sinuses were detected in the skin covering the mass. MRI demonstrated an ill-defined, soft tissue mass with multiple variable sized cystic lesions. The soft tissue mass measured 12 × 10 × 4 cm in the subcutaneous fat layer, it contained multifocal cystic lesions that revealed higher signal intensity on both the T1- and T2-weighted images, as compared with the adjacent neck muscles. The mass was not enhanced on the post-contrast T1 weighted images. Some of the cystic lesions extended to the skin. The mass was removed surgically and confirmed to be hidradenitis suppurativa.

Index words : Hidradenitis suppurativa

Hidradenitis suppurativa (HS, also known as acne inversa, acne tetrad and pyoderma fistulans) is an uncommon chronic suppurative inflammatory disease that affects the apocrine gland-bearing follicular epithelium (1-3). Clinically, it is characterized by recurrent chronic skin infections and the formation of sinus tracts and considerable scars (1). Its most common locations are the axilla, perineum and groin, and these areas have the highest density of follicular structures (2). The diagnosis of hidradenitis suppurativa is primarily clinical, so there are few reports about its magnetic resonance imaging (MRI) findings. We present here the MRI findings of a patient with hidradenitis suppurativa that caused a posterior neck mass.

Case Report

A 37-year-old man presented with a posterior neck mass. He had skin lesions on the posterior neck since puberty and he underwent medical treatment. But the lesion recurrently waxed and waned, so the extent of the lesion became wider. Physical examination revealed a hard, elevated, non-tender mass (longest dimension: 20 cm) with multiple sinuses that produced yellowish pus. He had another lesion of same nature on the left buttock. Clinically, the dermatologist had suspected the disorder to be hidradenitis suppurativa and referred the patient to a plastic surgeon for surgical removal. MRI was performed for planning of the operation. MRI demonstrated an ill-defined soft tissue mass with multiple variable sized cystic lesions. The soft tissue mass measured 12 × 10 × 4 cm in the subcutaneous fat layer, it showed low signal intensity with patchy increased signal intensity on both the T1- and T2-weighted images and it was not gadolinium-enhanced. The cystic lesions within the low signal mass showed increased signal in-

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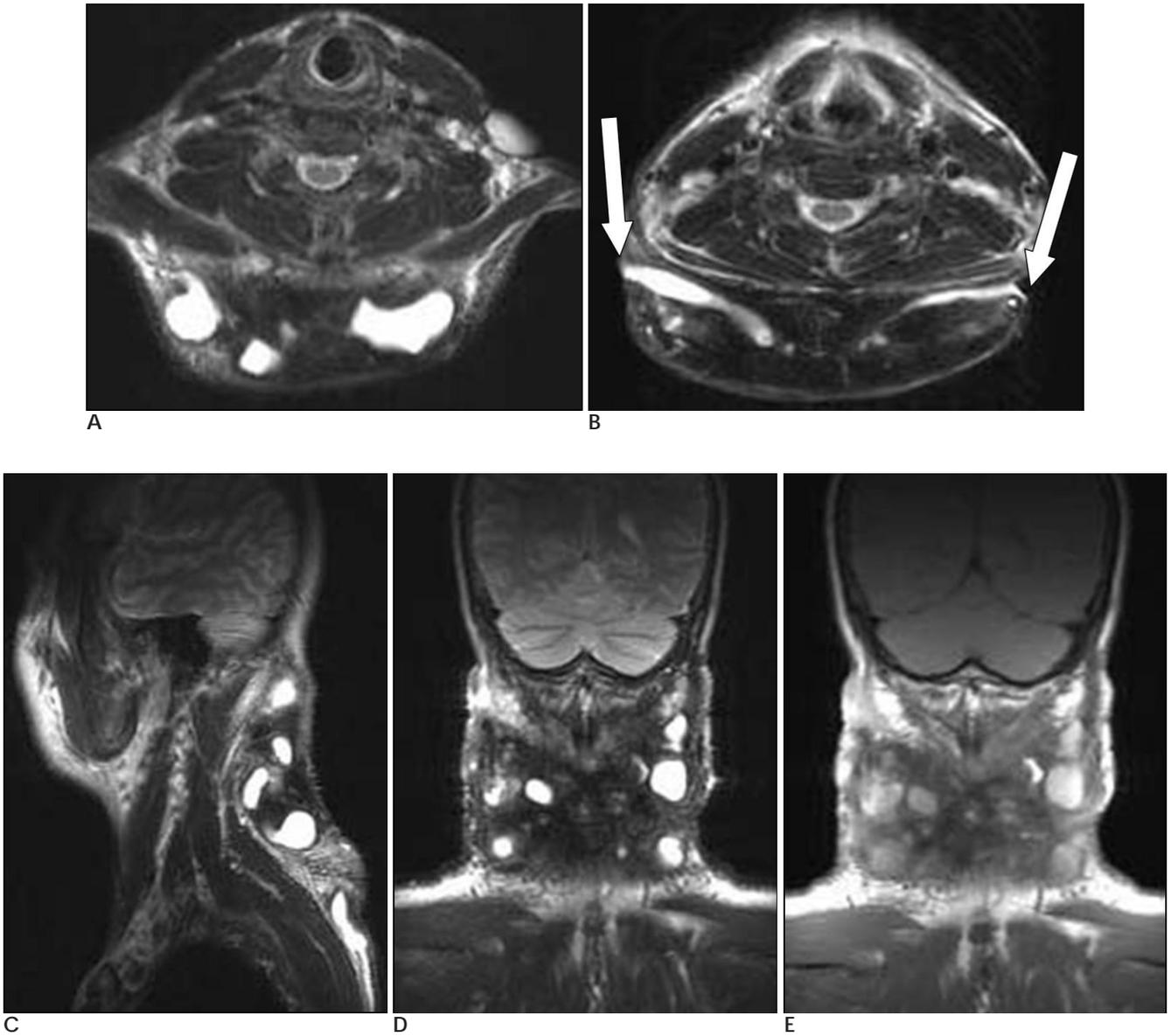


Fig. 1. A 37-year-old man presented with a hard posterior neck mass.

A. The T2-weighted axial image shows a soft tissue mass of low signal intensity in the subcutaneous fat layer of the posterior neck, and it shows the multiple, variable sized, cystic lesions with high signal intensity within it.

B. A more inferior T2-weighted axial image shows that some of the multiple cysts extend to the skin, forming fistulous tracts (arrows).

C, D. The sagittal and coronal T2-weighted images more accurately show the extent of disease. The mass in-

volves the skin and subcutaneous layer and it does not extend to the muscle or bone.

E. The non-contrast enhanced, T1-weighted coronal image shows the heterogeneous low signal intensity of the mass and the multiple cystic lesions of high signal intensity within it.

F. The gross specimen and photomicrography reveal chronic inflammation and fibrosis (solid arrows) with multiple epidermal cysts (open arrows) and some of them are ruptured.

tensity in comparison with the neck muscle on the T1-weighted image and bright signal intensity was noted on the T2-weighted image, and some of them extended to the skin. Surgical removal and skin grafts were performed. Pathologically, the lesion revealed chronic inflammation and fibrosis with multiple epidermal cysts (some ruptured) without malignant cells.

Discussion

Hidradenitis suppurativa is a misnomer because the process does not arise from the sweat glands, but rather, it arises from infected hair follicles. Hidradenitis suppurativa is a response to follicular occlusion that's probably caused by frictional trauma (1, 4). Follicular hyperkeratosis is the initial event, leading to occlusion, occasional secondary apocrine involvement and follicular rupture with the resultant inflammation and possibly secondary infection (2). Sinus tract formation arises from rupture of the abscess within the follicular epithelium. These sinus tracts may dissect into the deeper structures such as muscles, fascia and even bowels (1, 5).

Hidradenitis suppurativa is a recurrent disease with a highly variable clinical course. The clinical diagnostic criterias are wide and they include recurrent disease, scarring and a multifocal location (2). In this case, the patient had long standing, recurrent skin lesions in the posterior neck and left buttock, so clinically, the dermatologist had a high suspicion of hidradenitis suppurativa.

For patients with hidradenitis suppurativa, tender papules or deep-seeded nodules develop, and the nodule may slowly resolve; however, it often expands and coalesces with surrounding nodules to form a large, painful inflammatory abscess that may rupture spontaneously. The lesion then heals with fibrosis, dermal contractures and rope-like elevation of the skin; sinus tracts may also develop. On the MR imaging of our patient, this appeared as a soft tissue mass with low signal intensity on the T1- & T2-weighted images in the subcutaneous fat layer, which corresponds to chronic inflammation and fibrosis. The multiple cystic lesions within the mass correspond to epidermal cysts or abscessed cysts. Microscopically, some of them rupture or extend to the skin, and so they formed sinus tracts. We think the localized patchy increased signal intensity may correspond with ruptured cyst and spilled cystic material.

Systemic antibiotics, hormonal therapy and corticosteroids may be effective, but the common experience is one of initial response followed by subsequent relapse when such treatment is withdrawn. Intra-lesional corticosteroids are a good option for isolated inflamed lesions. But surgery is essential in many cases, especially for localized, recurrent, refractory and advanced disease. Incision and drainage shows a recurrence rate of 100% while wide excision and surgical reconstruction has a recurrence rate of 25% at a median interval of 20 months (2, 6). More aggressive and definitive surgical removal of all the involved tissue, beyond the clinically involved margin, is the most effective treatment modality. The incidence of complication from hidradenitis suppurativa such as septicemia, anemia, fistula and squamous cell carcinoma may be reduced by making the early diagnosis and adequate treatment (2).

The diagnosis of hidradenitis suppurativa is primarily clinical, but at the time of surgical excision, surgeons must consider the size or extent of the lesion, and whether or not they involve the surrounding structures such as muscle or bone so they can plan reconstruction. MRI gives sufficient and objective findings for this. In our case, the disease involved the skin and subcutaneous tissue without involvement of muscle and bone, so the resected area could be reconstructed by skin grafting.

Hidradenitis suppurativa is an uncommon disorder in dermatology, and there are few reports about its radiological findings. In our experience, the MRI findings of HS correspond very well to the surgical and pathologic findings.

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