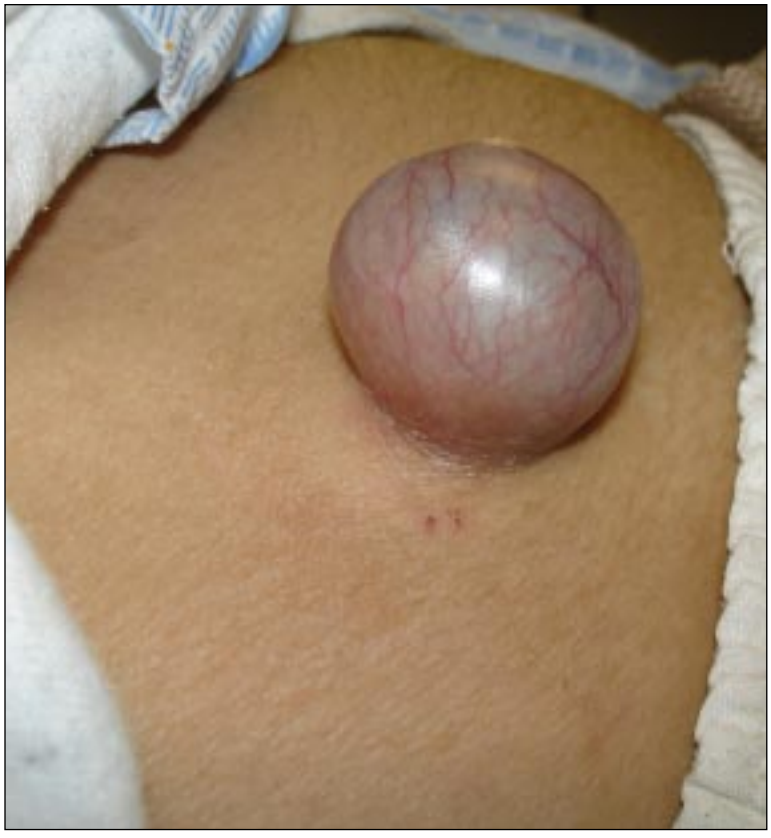
# What Is Your Diagnosis?



A 46-year-old man presented with an enlarging cystic lesion on the right lower abdomen of 1 month's duration.

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The authors report no conflict of interest.

# The Diagnosis: Benign Acrospiroma

The patient's lesion began as a blue macule that rapidly increased in size over 1 month. The patient denied any associated symptoms. Ultrasonography showed a cystic mass of complex fluid devoid of vasculature or intestinal loops. The cystic contents were evacuated and appeared to be serosanguineous fluid without distinct cytologic findings. Careful dissection of the overlying skin revealed a 3×3-cm cystic lining. Upon digital exploration, the lesion appeared to end in the deep subcutaneous tissue and was excised to the fascia for histologic analysis.

Benign acrospiroma has been described under various names, including clear cell hidradenoma, clear cell myoepithelioma, solid cystic hidradenoma, nodular hidradenoma, basal cell carcinoma of sweat gland origin, clear cell papillary carcinoma, dermal sweat gland tumor, eccrine sweat gland adenoma of the clear cell type, large cell sweat gland adenoma, porosyringoma, and superficial hidradenoma.[1,2] The histogenesis of benign acrospiromas has been a topic of debate for some time. The variety of names for this lesion indicates that numerous authors have proposed several possible derivations, including eccrine, myoepithelial, apocrine, and trichogenic.[3] Abendoza and Ackerman[4] suggested separating this skin lesion into 2 groups: those with eccrine differentiation and those with apocrine differentiation, with 95% of hidradenomas demonstrating apocrine differentiation. Gianotti and Alessi[5] reported 5 cases of clear cell hidradenoma with apocrine differentiation, demonstrating continuity with the folliculosebaceousapocrine unit. Because of the lack of consensus on the precise histogenesis, nomenclature, and classification of these tumors, they are described here as benign acrospiromas, which does not indicate either eccrine or apocrine differentiation.

This skin tumor usually is a painless solitary lesion, presenting predominantly in females. Although the majority of cases have been in adults, some tumors have been reported in children.[3] The lesions vary in size and color, ranging from flesh colored to erythematous, blue, or brown (Figure 1).[1] Benign acrospiromas usually are discovered on the head, neck, and anterior trunk, but they may occur on any region of the body.[1,3]

Benign acrospiromas are tumors arising from the skin adnexa. Normal intact epithelium usually surrounds the tumors. Histologically, the lesion is found within the dermis and may extend into the subcutaneous fat. The tumor is made of lobulated masses with tubular lumina and cystic spaces with eosinophilic homogeneous material that is serous,

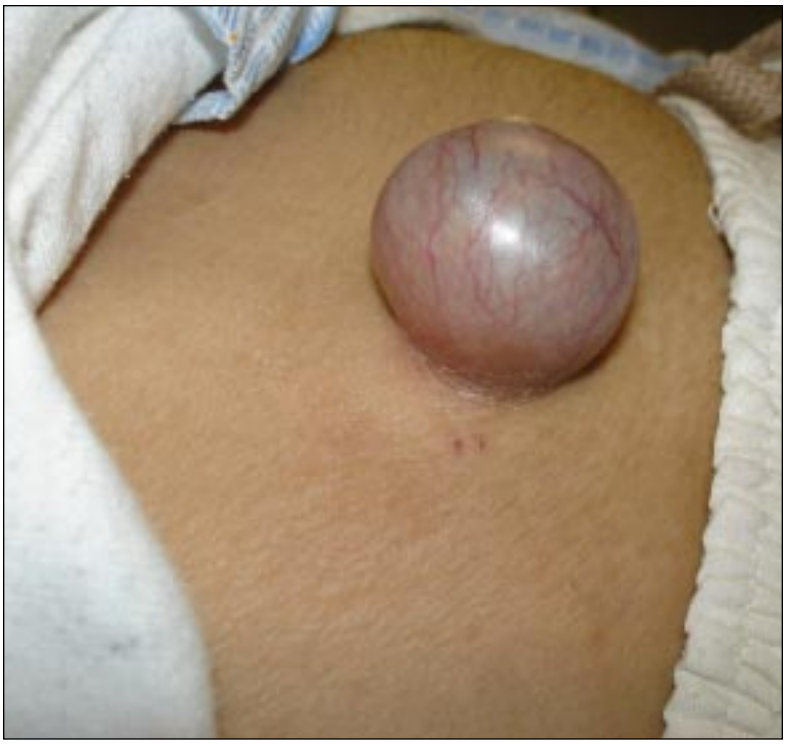

**Figure 1.** Intact lesion located on the right lower abdomen.

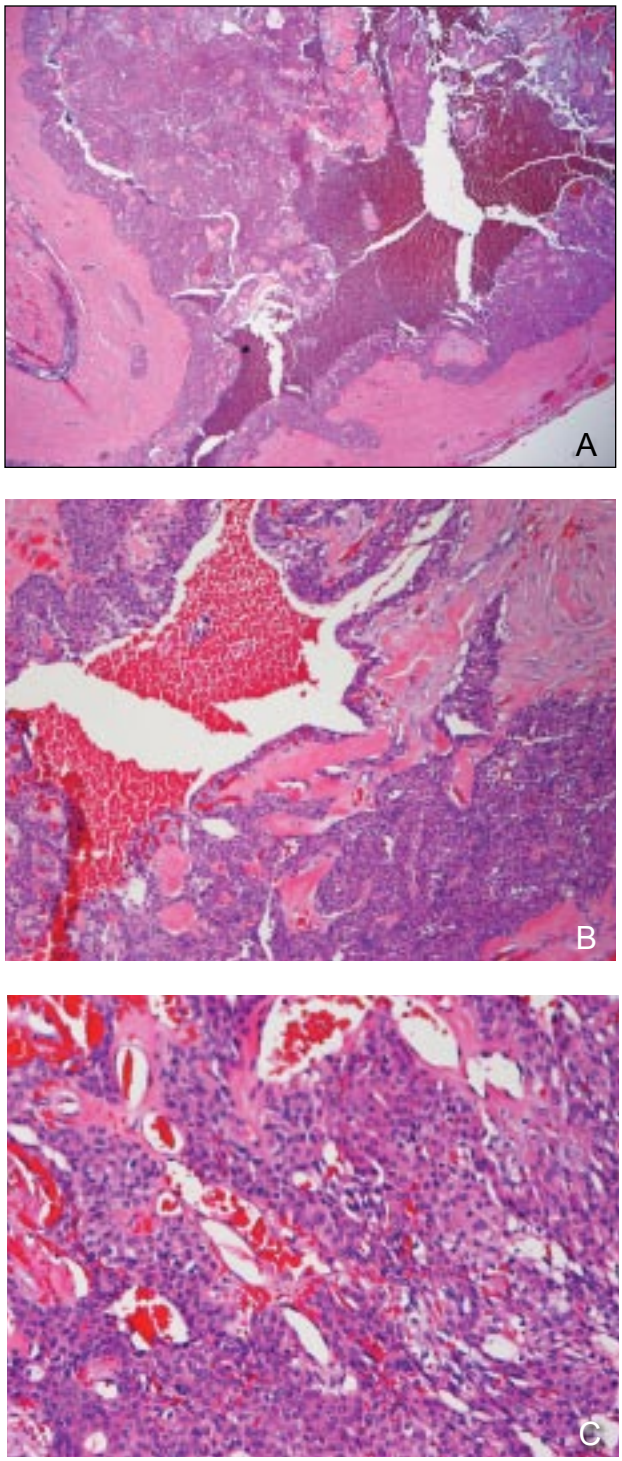


**Figure 2.** Photomicrographs of the cross-section of the lesion (A–C)(H&E, original magnifications ×4, ×40, and ×40, respectively).

gelatinous, or hemorrhagic.[2] The tubuli are lined with cuboidal ductal cells or columnar secretory cells with occasional apocrine secretion. Two types of tumor cells are present in varying proportions in different lesions (Figure 2): (1) polyhedral cells with a round nucleus and basophilic cytoplasm and (2) large round cells with clear cytoplasm containing glycogen and a distinct cell membrane.[1] Mitotic figures are infrequent to absent.[2] Benign acrospiromas are positive for keratin, epithelial membrane antigen, carcinoembryonic antigen, S100 protein, and vimentin.[1]

The definitive treatment for benign acrospiroma is surgical excision with margins. Recurrence is possible and usually is associated with inadequate excision of the primary lesion. Mohs micrographic surgery has been reported to be beneficial for removal of large or recurrent tumors.[6] Malignant variants are rare, usually indicated by infiltrative and poorly circumscribed growth with diffuse necrosis, pleomorphism, or atypical mitoses. Malignant transformation can develop from benign lesions that have frequent or atypical mitoses, but in certain cases of malignant lesions, there is only slight to moderate or absent nuclear anaplasia.[1] Certain tumors with bland histologic features have demonstrated local recurrence or metastasis.[7-9] Therefore, in cases of benign acrospiromas that have frequent mitoses or nuclear atypia without asymmetric invasive growth, suspicion for malignancy and metastasis should be maintained because benign-appearing lesions can recur locally or metastasize. Reexcision for complete removal of atypical lesions may be necessary.[1]

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