

# Vascular Spiradenoma

Z Pan, J Wang, N Huynh, S Repertinger, D Sarma

## Citation

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## Abstract

A 46-year-old female presented with a subcutaneous nodule in her right neck. On gross examination, this well circumscribed nodular lesion measured 1.0 × 0.7 × 0.4 cm and showed a firm, gray-pink cut surface. Microscopically, the tumor was composed of sharply demarcated lobules in the dermis without apparent connection to the epidermis. Prominent vascular spaces of varying sizes were present in each lobule and were composed of thick, hyalinized vascular walls lined by normal endothelial cells (Figures 1 and 2). The vascular lumens contained pale pinkish fluid and red blood cells. In between the vessels were groups of benign-appearing tumor cells arranged in cords, islands, and sheets. These cells were embedded within a hyalinized stroma. The tumor cells were intermediate to large in size, with large vesicular and round or oval nuclei (Figure 3). One or two small nucleoli per nucleus were seen in many tumor cells. Mitotic activity was negligible and no necrosis was present. Scattered small lymphocytes were present throughout tumor lobules.

## CASE REPORT

A 46-year-old female presented with a subcutaneous nodule in her right neck. On gross examination, this well circumscribed nodular lesion measured 1.0 × 0.7 × 0.4 cm and showed a firm, gray-pink cut surface. Microscopically, the tumor was composed of sharply demarcated lobules in the dermis without apparent connection to the epidermis. Prominent vascular spaces of varying sizes were present in each lobule and were composed of thick, hyalinized vascular walls lined by normal endothelial cells (Figures 1 and 2). The vascular lumens contained pale pinkish fluid and red blood cells. In between the vessels were groups of benign-appearing tumor cells arranged in cords, islands, and sheets. These cells were embedded within a hyalinized stroma. The tumor cells were intermediate to large in size, with large vesicular and round or oval nuclei (Figure 3). One or two small nucleoli per nucleus were seen in many tumor cells. Mitotic activity was negligible and no necrosis was present. Scattered small lymphocytes were present throughout tumor lobules.

## COMMENT

Spiradenoma is a benign adnexal tumor of eccrine origin. Clinically, it most commonly arises in persons aged 15 to 35 years. It is most commonly seen on the trunk, followed by the extremities and the head and neck. Clinically, it usually manifests as a small (less than 1.0 cm), solitary, gray, pink, purple, red, or blue dermal or subcutaneous nodule.

Histologically, the tumor is usually lobulated and composed of two types of epithelial cells: small, darkly staining basaloid cells at the periphery of the tumor nests and larger, paler cells in the center. Focal blood-filled vessels may be present.

Spiradenoma with prominent vascularity has been reported in English literature [1,2,3,4] as giant vascular eccrine spiradenomas, tumors 3 cm or more in size when compared to the less than 1 cm in size common spiradenomas. Grossly, the tumor is usually intradermal and well-demarcated. The tumor may be mistaken for an angiomatous lesion or a thrombosed vascular tumor due to its florid vascularity and hemorrhagic features. The large tumor may undergo extensive degenerative changes. In some cases, immunohistochemical staining may assist in making the correct diagnosis. Spiradenoma shows characteristic positive reactivity to cytokeratin (especially cytokeratins 7, 8, and 18), S-100 protein and carcinoembryonic antigen (CEA) [4]. The present case shows that the prominent vascular pattern is not restricted to the giant variety, but may also be seen in small spiradenomas.

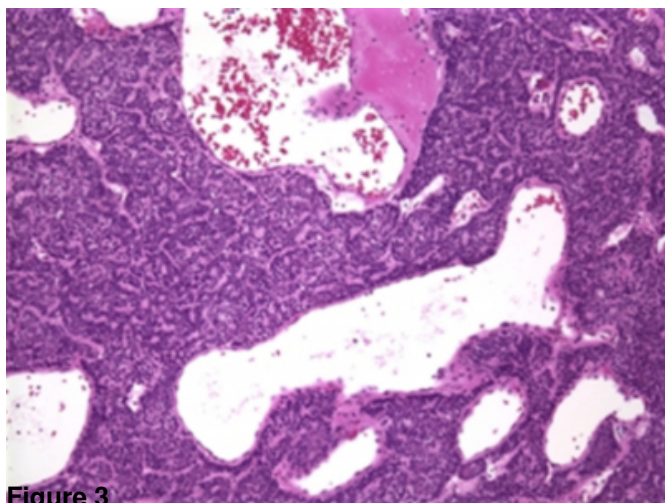
**Figure 1**

Figure 1: The tumor consists of sharply demarcated lobules of dark, basaloid cells with prominent dilated vascular spaces.



**Figure 2**

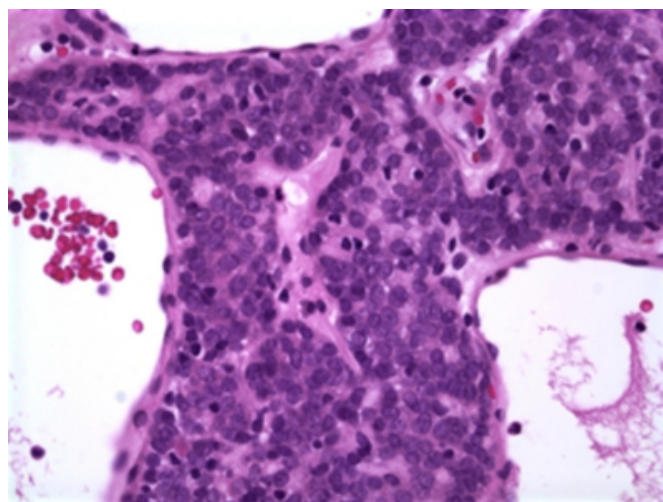
Figure 2: Groups of dark basaloid epithelial cells with scattered lymphocytes between large vascular spaces are seen.



**Figure 3**

Figure 3: The tumor cells contain large, vesicular, and ovoid

nuclei in a hyalinized stroma.



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