



## Case Report

# A Facial Spider Angioma Mimicking Basal Cell Carcinoma

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## Abstract

We report the case of a 47-year-old cirrhotic female patient with an unusual presentation of a spider angioma on the bridge of the nose that mimicked a basal cell carcinoma (BCC). The diagnosis was confirmed by a dermatopathological read of a shave biopsy of the lesion. Nonmelanoma skin cancer management relies on early recognition and identification of the tumor. Unusual presentations of the skin tumor may lead to delays in treatment and an advanced stage of growth and spread.

**Keywords:** Liver Cirrhosis; Spider Angioma; Telangiectasia; Basal Cell Carcinoma; Diagnosis, Differential

## Introduction

Nonmelanoma skin cancer is the most common malignancy worldwide, and over two-thirds of cases are attributed to basal cell carcinoma (BCC) [1]. The median time interval from tumor onset to metastasis is 9 years [2]. Tumors should be properly identified and excised before progression can occur. However, the appearance of BCC may be similar to other benign skin conditions and confound the clinical picture, possibly leading to delay in diagnosis and removal before spread. We present the case of a

47-year-old woman with liver cirrhosis and an unusual spider angioma that mimicked the appearance of a nodular BCC.

## Case Presentation

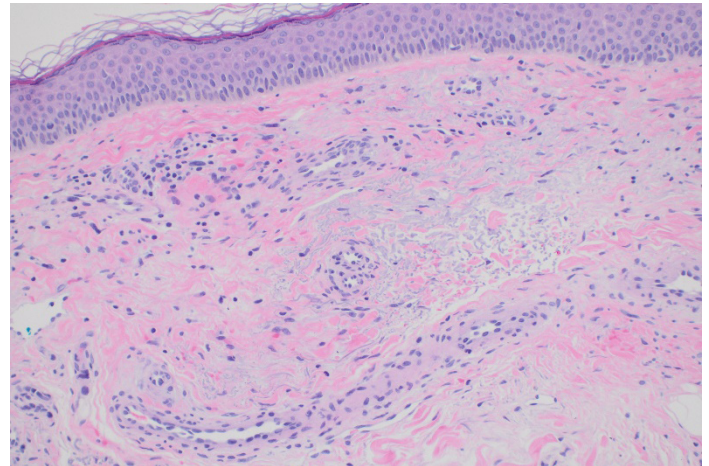
A 47-year-old Caucasian woman presented to the emergency room with abdominal pain and distention and was hospitalized for decompensated liver cirrhosis. On physical exam, she had multiple skin lesions consistent with spider angiomas over her chest and shoulders. However, there was a shiny, raised, rubbery, white-grey dome-shaped papule, measuring 6 mm in diameter just left of the midline on the bridge of the patient's nose (Figure 1). The surrounding erythema and telangiectasias blanched when light pressure was applied to the center of the lesion.



**Figure 1:** Six mm spongy, light grey papule slightly left of midline of the bridge of the patient's nose surrounded by erythema and telangiectasias.

No cervical lymphadenopathy was present. The patient stated that the lesion had been present for at least a year, and she initially thought it was a closed comedone from acne. The patient had made multiple attempts to drain the lesion at home as had her primary care physician without improvement. The most recent attempt at her doctor's office resulted only in bleeding from the site. Considering the history and the lesion's location, the differential diagnosis included spider angioma secondary to liver cirrhosis, papulopustular rosacea, and BCC. A shave biopsy of the lesion was performed to rule out malignancy.

The formal dermatopathological read of the biopsy (Figure 2) revealed proliferation of variably sized vascular spaces in the dermis with benign endothelial lining consistent with a hemangioma.



**Figure 2:** Hematoxylin and eosin-stained histological section of the patient's nasal papule (200x magnification), showing various spaces in the dermis with benign endothelial lining.

### Discussion

Spider angiomas, also known as spider nevi or telangiectasias, occur frequently in patients with compromised hepatic function due to chronic liver disease of any etiology [3]. While the pathogenesis has not been completely elucidated, the likelihood of the skin manifestation occurring is linked to increased circulating estrogen levels [4]. Other possible underlying conditions include pregnancy, severe malnutrition, or systemic disease such as thyrotoxicosis [5].

Classically spider angiomas are described as presenting on the face, neck, upper chest, and arms in the adult population but they also occur commonly on the mucosa of the oral cavity and gastrointestinal tract [6]. Bleeding, though unusual, occurs primarily when the lesion is picked or lanced, as with this patient who believed the angioma to be a comedone. While spider angiomas may be of cosmetic concern to the patient, the clinical significance of a spider angioma is generally limited to its use as a marker of potential underlying disease or hormone levels.

BCC usually develops in the context of long-term intermittent ultraviolet light exposure such as repeated occupational or recreational sunlight exposure or tanning bed use. The incidence of BCC in the United States has steadily increased by 4-8% each year since the 1960s, and the estimated lifetime risk for BCC is between 20-30% among Caucasians. Other risk factors include chronic immunosuppression and positive family history. Nodular BCC, the most prevalent subtype, has a propensity to grow in head and neck areas. Under dermoscopy, the clinical morphology is commonly described as a shiny, pearly papule or nodule, sometimes surrounded by superficial telangiectasias [7]. These blood vessels typically follow an “arborizing” pattern, with a large-diameter stem that haphazardly divides into smaller branches [8]. According to retrospective data by Kreusch and Koch, arborizing telangiectasias are 96.1% and 90.9% sensitive and specific for BCC. This feature has thus become an important criterion for evaluating potential lesions [9]. Currently, case reports outlining unusual instances of this skin manifestation focus on those that are abnormally large or contribute to other rare pathologies, such as acute anemia [10-13]. The similarity of appearance of BCC and other telangiectasia-associated skin lesions has rarely been described [13].

Our patient had a spider angioma presenting as a pearly white, erythematous, raised papule in a region of the body with high sun exposure, concerning for a malignant process. Furthermore, the web-like telangiectasias found in this patient mimicked the arborizing pattern that is commonly associated with BCC. The possibility of malignancy was impossible to exclude without histological confirmation. Since spider angiomas and the arborizing telangiectasias found on BCC both involve superficial vessels, both will blanch when pressure is applied. Perhaps one distinguishing clinical feature between the two lesions is that the surrounding erythema is more prominent in spider angiomas than with BCC, although we found no case reports or reviews to confirm this.

## Conclusion

Clinicians in general practice should consider the possibility of malignancy in patients presenting with spider angioma in sun-exposed areas, especially when other risk factors and features of BCC are present.

**Ethical Guidelines:** Written informed consent was obtained from the patient for publication of the non-identifying case details and photograph. The study was conducted according to the guidelines of the Declaration of Helsinki.

**Conflict of Interest:** The authors received no financial support for the work and have no conflicts of interest.

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