

# Dermatopathology

## P900

### **Epidermotropic metastasis from vulvar squamous cell carcinoma: A rare cutaneous manifestation**

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Vulvar carcinoma accounts for 5% of all female genital tract malignancies, with 95% of all occurrences as squamous cell carcinomas (SCC). 3490 new cases and 880 deaths from vulvar cancer were estimated for 2007. Even more rare, cutaneous metastases occur in 0.7-9% of all malignancies. Skin lesions are the first sign of extranodal spread in 7.6% of all cases and can be exceedingly difficult to differentiate from primary SCC of the skin. However, this is a crucial distinction to make because metastatic cutaneous SCC is associated with a much poorer prognosis than primary SCC. Only eight reports of vulva SCC metastasizing to the skin have been documented.

Cases with epidermotropic metastases evolving from internal organ carcinomas are also extremely uncommon, with most lesions attributable to breast cancer. We report a rare case of cutaneous epidermotropic metastases from vulvar squamous cell carcinoma.

A 77 year old female patient presented with multiple firm, pink and skin-colored papules and nodules on the left thigh ranging in size from 2-6 mm. She had a history of squamous cell vulvar cancer status post radical vulvectomy with negative bilateral lymph node dissection 5 years prior to presentation. Histopathology was consistent with metastatic SCC including evidence of lymphatic invasion and epidermotropism. CD31 and CD34 stains highlighted intralymphatic invasion. While treatment with cisplatin and radiation therapy was planned at discharge, the patient died within a few months due to complications from the metastases. A metastatic SCC rather than primary cancer diagnosis was determined given the patient's history of primary vulvar SCC, presentation of multiple lesions and evidence of spread both to the lymph nodes and the lymph vessels in the skin biopsy. Unfortunately, one in three cases of vulva SCC is not treated until the advanced stage and cases with metastases to the skin have particularly poor prognoses. All patients with cutaneous metastases on the vulva, abdomen or lower extremities died within ten months of their diagnosis.

This case highlights not only the need to suspect metastatic disease in patients with a history of primary cancer but also, the necessity of providing such information to the dermatopathologist. In doing so, the diagnosis of metastatic disease can be considered and appropriate treatment can begin as soon as possible.

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## Dermatopathology

### P901

#### **Metal-induced granule deposition with pseudo-ochronosis**

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A healthy 49-year-old female presented with an irregularly bordered and pigmented large black-gray plaque in the right popliteal fossa where she had been struck by a firecracker 30 years ago. Epiluminescence revealed a blue-white veil. A biopsy revealed minute black granules distributed on elastic fibers in the papillary dermis and focally surrounding eccrine coils. There were prominent ochre colored elastic fibers throughout the reticular dermis. Scanning electron energy dispersion x-ray analysis performed on 12 collections of particles demonstrated zinc, copper, titanium, nickel, aluminum, gold, and silver. Overall, zinc, copper, and iron were the most common metals seen. Only one collection showed peaks corresponding to silver and gold, and most notably, there was only one peak for silver.

The initial diagnosis for this lesion based on the black granules seen on hematoxylin and eosin stain was localized argyria. Pseudo-ochronosis has been described in several patients with localized argyria. Firecrackers can contain varying amounts of metals such as aluminum, steel, zinc, or magnesium dust to produce bright sparks, but do not appear to contain significant amounts of silver or agents that cause exogenous ochronosis. Given the predominance of iron, zinc and copper compared to silver, we hypothesize that the findings are secondary to metal deposition as opposed to silver deposition alone. Non-silver metal deposition may result in a histopathologic picture resembling localized argyria with pseudo-ochronosis.

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# Dermatopathology

**P902**

## **Epithelial sheath neuroma**

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**BACKGROUND:** Epithelial sheath neuroma was first reported by Requena et al in 4 patients over 55 years of age who presented with an erythematous papule on the upper back. The histopathology is characterized by enlarged bundles of mature nerve ensheathed by a cytologically benign keratinizing squamous epithelium within the superficial dermis. The classification and significance of this entity is controversial. They believed this entity to be benign, although it simulates carcinomatous perineural invasion histologically. Recognition is important in order to avoid aggressive surgery and the potential for subsequent radiation or chemotherapy.

**OBSERVATION:** A 57-year-old woman presented to a dermatologist because of a pruritic lesion on her back. Physical examination revealed a 3.5 mm erythematous to tan papule. Clinical impression was irritated intradermal nevus and a shave biopsy was performed. The initial dermatopathology report described the lesion as hypertrophied cutaneous nerves encased in squamous epithelium with the comment that this was the pattern seen with cutaneous neural involvement by squamous cell carcinoma. Subsequently a complete excision was performed and the patient was referred to a radiation oncologist who recommended localized external beam radiation. The patient declined the radiation therapy. Nine months after biopsy, the patient is without evidence of recurrence. Subsequently we became aware of the recently described entity, epithelial sheath neuroma. Review of our case led to the conclusion that this lesion actually represented an epithelial sheath neuroma rather than neural involvement by squamous cell carcinoma.

**SUMMARY:** Our case is illustrative of the importance for dermatopathologists to be aware of this entity, which could easily be mistaken for neural involvement by malignant neoplasm without careful pathologic evaluation and correlation with clinical findings.

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# Dermatopathology

## P903

### **Diffuse dermal angiomatosis involving the breast**

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Diffuse dermal angiomatosis (DDA) is a rare condition in the spectrum of reactive angioendotheliomatosis which is commonly associated with vaso-occlusive disease. Fourteen cases have been reported in the literature. The clinical presentation can be variable, ranging from tender, erythematous to violaceous patches and reticulated, indurated plaques that may ulcerate. All reported cases have occurred in women. Sites most affected are the extremities, particularly the thighs. Breast involvement is rare. Comorbid conditions include cardiovascular disease, hypertension and diabetes mellitus. Histologic features are characteristic and subtle consisting of a diffuse proliferation of benign endothelial cells that are CD31 positive and CD34 positive throughout the dermis. Histopathologic differential diagnosis includes acroangioidermatitis, Kaposi's sarcoma and low-grade angiosarcoma. We report an additional four cases of women with DDA of the breast who had underlying vaso-occlusive disease. Management of DDA requires improving underlying tissue hypoxia and ischemia. Revascularization is the most efficient way of accomplishing this improvement. Recognition of this entity and its risk factors is important as successful treatment options are available.

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