Atrial myxoma identified by transesophageal echocardiography in a patient with NAME syndrome

A 37-year-old woman was seen at the dermatology clinic with asymptomatic hyperpigmented spots on the vulva, face, and hands. She had symptoms including exertional dyspnea, fatigue, palpitations, and syncope. She had not taken any oral contraceptives and no topical drugs had been applied to the vulva.

Her mental, sexual, and physical development were normal. On physical examination, her blood pressure was found to be 130/80 mmHg and her pulse 75 beats/min. Cardiac examination revealed 2/6 systolic murmur on the mitral area.

She had brown and black macular lesions corresponding to freckles and lentigines on her vulva, face, lips, and arms (Fig. 1). She stated that the lesions had been present since childhood. There were no blue nevi. Her father and sisters also have lentigines.

Laboratory investigations, including hemogram, sedimentation, serum biochemistry, urinalysis, follicle-stimulating hormone (FSH), luteinizing hormone (LH), prolactin (PRL), thyroid-stimulating hormone (TSH), free thyroxine, nocturnal serum cortisol, and morning and evening serum adrenocorticotropic hormone (ACTH) levels, were normal. X-Rays of the sella turcica and chest were normal. There was no abnormality on electrocardiography. The result of computerized axial tomography of the brain showed no abnormality. Precardial two-dimensional transthoracic echocardiography (TTE) revealed mitral valve prolapse and regurgitation, but no tumor was seen. A subsequent transesophageal echocardiography demonstrated a tumor (1.5 × 2 cm in size) located in the free wall of the left atrium (Fig. 2).

Histologic examination of the vulva showed marked basilar hyperpigmentation of the melanocytes and keratinocytes with melanocytic hyperplasia; this was consistent with lentigines. The microscopic examination of the pigmented lesions on the hands showed increased melanin pigmentation restricted to the basal layer, with no increase in melanocyte numbers; this was consistent with ephelides.

Ophthalmologic, respiratory, abdominal, dental, and neurologic examinations were normal. A psychiatry consultation resulted in the diagnosis of a somatization disorder and antidepressant medication was prescribed. Cardiology
Correspondence

small tumors (<3 cm) and those located on the free walls of the atrium away from the atrial septum. Transesophageal echocardiography (TEE) is more accurate in identifying these cases. The closeness of the tumor to the TEE probe, the absence of intervening structures with greater echogenicity, and the high resolution of the TEE transducer allow accurate visualization through the esophageal window.

Although not identified in our case, endocrine overactivity is often a component of NAME syndrome. Cushing's syndrome, acromegaly, sexual precocity, and prolactin secretion by pituitary adenoma have all been reported.

Our case illustrates the importance of complete cardiac examination with echocardiography in any patient presenting with abnormal profuse macular pigmentation. This case also demonstrates the superiority of TEE in detecting smaller atrial myxomas in these patients, an important consideration when TTE is unable to visualize a tumor.

Consultation led to the decision to remove the tumor. We regularly follow up the patient and her family members.

Discussion

Carney complex is the complex of myxomas, spotty pigmentation, endocrine overactivity, and schwannomas. It is a multisystem tumor disorder with both sporadic and familial occurrence. Several components of this complex have been recognized and described under various acronyms. The association of atrial myxoma, ephelides, myxoid neurofibroma, and lentigines has been described under the acronym NAME. The presence of two or more characteristic lesions is regarded as diagnostic. The definitive diagnosis is warranted if three of the components are seen.

Spotty pigmentation is most noticeable on the face, typically involving the centrofacial area including the vermilion border of the lips and conjunctiva. Other sites frequently involved are the eyelids, ears, vulva, back of the hands, and fingers. Microscopic examination of the pigmented lesions shows a spectrum of histologic abnormalities, but most frequently lentigines and blue nevus. In our patient, lentigines were located on the vulva; ephelides were located on the centrofacial area and the back of the hands.

Myxomas tend to be multiple, often found on the breast, skin, and heart. The most common locations for skin myxomas are the scalp, face, nipples, and eyelids. In our case, no cutaneous myxoid tumor was observed. Cardiac myxomas are generally (in two-thirds of cases) diagnosed at a mean age of 24 years, but they can also appear at any time of life and grow rapidly. These neoplasms are usually single and most often arise on the left side of the heart, rarely occurring on the right side. They are often symptomatic, causing intermittent valvular obstruction or embolic episodes. The majority of atrial myxomas are readily apparent on standard TTE. TTE fails to diagnose

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Verrucous varicella zoster virus lesions associated with acquired immunodeficiency syndrome

Acquired immunodeficiency syndrome (AIDS) is associated with atypical presentations of cutaneous infections. We present a verrucous, hyperkeratotic presentation of chronic varicella zoster virus (VZV) infection.

A 34-year-old woman with AIDS and a CD4 count of 5/mm³ presented with a 1-month history of verrucous lesions. Physical examination revealed several prominent, thick, dry, hyperkeratotic lesions among groups of vesiculocystic lesions on her lower extremities (Fig. 1). During her admission, the transformation of vesiculocystic lesions to hyperkeratotic ones was noted despite treatment with intravenous acyclovir 12 mg/kg three times a day. Tzanck smear was negative. A biopsy of both hyperkeratotic and vesiculocystic lesions revealed changes consistent with VZV infection (Fig. 2). Polymerase chain reaction (PCR) revealed the presence of VZV DNA in a hyperkeratotic lesion.

Verrucous VZV in the setting of AIDS has been reported in the dermatologic literature. The formation of verrucous lesions in AIDS patients has been attributed to an increase in factor XIIIa-positive dendritic cells, as well as to decreased VZV gE and gB envelope glycoprotein expressing keratinocytes, leading to a latency-like state of chronic viral infection. It is important for physicians to be aware of this hyperkeratotic presentation of VZV in order to provide appropriate diagnosis and treatment. Viral culture in addition to PCR or direct fluorescent antibody tests should be performed on biopsy samples from verrucous lesions and vesicular fluid, if vesicular lesions are present. Moreover, prompt treatment with antivirals should be provided, with an awareness that recurrence of lesions with discontinuation of antiviral therapy and acyclovir-resistance verrucous VZV infections have been reported.

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Basal cell carcinoma associated with chronic venous leg ulcer

The association of basal cell carcinoma (BCC) and venous leg ulcers has been reported as an uncommon form of malignancy, and it remains unknown whether there is generally an increased risk of developing cancer in chronic leg ulcers, or if the occurrence of malignant tumors is distinguishable from venous ulcers.

Case report

A 65-year-old Caucasian woman was admitted to the clinic due to a suspected lesion which had appeared 4 months previously within a pre-existing ulcer on the right lower leg. The patient had suffered from chronic venous insufficiency for 22 years, and had a positive history of arterial hypertension, hypercholesteremia, and phlebitis. She had never experienced any pain, and had no positive history of skin cancer.

Physical examination revealed an ulcer, 2 × 2 cm in size, and the surrounding skin showed slight erythema and pigmentation. The surface of the ulcer demonstrated shiny granulation tissue (Fig. 1). On physical examination, the patient was in good condition except for her skin. A biopsy from the edge and the base of the ulcer was performed. Haemostasis was achieved by direct local pressure. Histologic examination (Fig. 2) revealed the diagnosis of BCC.

Discussion

BCC is the most common type of skin cancer, predominantly occurring in areas exposed to the sun.1 Malignant transformation in areas of chronic ulceration has been considered to be very rare, and occurs mainly in squamous cell carcinoma (SCC).2 BCC as a complication of venous leg ulcer is still considered to be uncommon and an exception.3 Recent reports have shown, however, that this tumor on the lower limb might appear more often than originally expected.4 In a recent Australian study performed by a specialized clinic for leg ulcers, examining 2448 ulcers, the proportion of leg ulcers which proved to be malignant was much higher in comparison with data from the literature, indicating that 75% of the examined malignant ulcers were BCC and 25% were SCC. The authors related this higher proportion to the fact that Australia has the world’s highest incidence of nonmelanoma skin cancer.5

Figure 1 Clinical appearance of leg ulcer showing shiny granulation tissue

Figure 2 Histology of the leg ulcer demonstrating characteristic features of BCC (hematoxylin and eosin, × 100)
What is still unclear is whether the malignant tumor originates as a primary skin cancer or reflects secondary malignant changes in pre-existing chronic ulcers. It has been hypothesized that venous stasis induces malignant transformation leading to ulceration. Black and Walkden postulated that the changes in dermal connective tissue appearing in venous stasis predispose to the development of BCC. Others commented on the association of chronic dermatitis with venous disease and malignant transformation. Tenopyr and Silverman, as a result of the low incidence of BCC arising in such common conditions as leg ulcers, considered that carcinomas in leg ulcers represent incidental occurrences, and that precancerous influences are caused by the varicose condition. They suggested a period of at least 3 years before the diagnosis of cancer in venous ulcers can be determined. The patient presented had a 22-year history of chronic venous ulceration. She reported changes of the margin and surface of the ulcer which did not seem normal to her. Thus, we assume that the carcinoma may have developed de novo.

In our case, as well as in most cases reported in the literature, patients developing cancer in leg ulcers, most commonly, were women. It has been postulated that the higher incidence of BCC on the legs of women is due to increased sun exposure because of fashion tendencies. Both UV radiation and chronic venous ulcers may serve as co-carcinogenic effects leading to synchronous tumors.

Another interesting fact is that most BCCs occurring in venous ulcers do not show the typical features of BCC. The difficulty in differentiating between the ulceration of skin cancer on the lower leg and chronic leg ulcers due to other reasons has been reported previously. Most ulcers were considered to be benign. Failure to respond to treatment after several months led to controversy. Shiny, translucent granulation tissue and changes in the margin of the ulcer are considered as clinical indications. Our patient experienced signs of nonhealing and changes in the surface of the ulcer.

In contradiction to the suggestions of other authors to biopsy all ulcers from the onset, we believe, as well as others, that an ulcer that fails to respond to treatment within 3 months and to show re-epithelialization should be biopsied. Features such as translucent or shiny granulation tissue affecting the margin of the ulcer should alert the clinician. Patients who suffer from chronic leg ulcers should be carefully informed by their physicians and health workers about clinical features and changes of ulcer appearance in order to receive early and prompt medical attention.

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**Corticosteroid-resistant erosive oral lichen planus successfully treated with topical cyclosporine therapy**

A 62-year-old Japanese woman presented in April 1997 with a chronic, painful, ulcerative lesion of the lower lip. The lesion had developed 2–3 years previously and had not healed despite the many local treatments, including topical corticosteroid (dexamethasone).

Physical examination disclosed well-demarcated ulcerated lesions surrounded by erythema with whitish, radiated hyperkeratosis on the lower lip (Fig. 1). Bilateral buccal mucosa were intact. No skin and nail involvements were seen.

The patient was treated with topical application of cyclosporine solution (100 mg/mL) by finger twice a day. Two weeks after the start of topical cyclosporine therapy, the lip ulcers dramatically improved and symptoms such as burning and pain disappeared (Fig. 2). The lesions had resolved within 4 weeks. So far, topical cyclosporine has been continued and the mucosal lesion has not relapsed. The serum cyclosporine level was below 20 ng/mL during the treatment. No systemic adverse reactions have been observed.

Histopathologic examination of the erythematous lesion on the lower lip before cyclosporine therapy revealed mild hyperkeratosis with focal hypergranulosis. Colloid bodies...
Correspondence

Consisting of lymphoid cells was also seen in the dermis (Fig. 3). The diagnosis of erosive oral lichen planus was confirmed.

Discussion

We have described a patient with erosive oral lichen planus who responded well to topical cyclosporin therapy without raised blood cyclosporine concentration. The patient was unresponsive to many treatments, including topical application of corticosteroid.

The published results of topical cyclosporin therapy by a "swish and spit" medication or finger application in oral lichen planus have been controversial.1–4 Eisen et al.1 reported six patients with oral lichen planus successfully treated with topical cyclosporine. On the other hand, Sieg et al.4 described no significant difference between topical cyclosporine and corticosteroid treatment in their clinical trial.

The action mechanism of the topical application of cyclosporin is unknown. Levell et al.2 pointed out that the effectiveness of topical treatment was probably due to systemic absorption; however, most of the reported cases showed a very low cyclosporine level in the blood.4 In erosive or ulcerated lesions of oral lichen planus, cyclosporine may directly act in situ through suppression of interferon-γ produced from activated T lymphocytes and interferon-γ-induced overexpression of ICAM-1 and HLA-DR by keratinocytes.

We believe that topical use of cyclosporine solution may be useful for some patients with erosive oral lichen planus who are resistant to conventional corticosteroid therapy as an alternative treatment.

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Drug names
cyclosporine: Sandimmun

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