Diffuse dermal angiomatosis of the abdomen

Diffuse dermal angiomatosis (DDA) is a well-defined clinicopathological entity belonging to the cutaneous reactive angiomasoses, a group of benign vascular disorders characterized by intravascular and extravascular hyperplasia of endothelial cells with or without accompanying
DDA is a rare disease with about 20 cases reported in the literature. Initially described in 1994 by Krell as a variant of reactive angioendotheliosis (RAE), it is nowadays considered as a distinct entity within the cutaneous reactive angiomatoses [1, 2, 6]. In fact, although the clinical presentation of DDA may be indistinguishable from that of RAE, the histological features are different: RAE shows intraluminal proliferation of endothelial cells with or without pericytes, whereas DDA is characterized by an interstitial proliferation of benign endothelial cells between collagen fibers.

Although the pathogenesis of DDA is still not completely known, it is thought to represent a VEGF-mediated reactive endothelial cell hyperplasia due to underlying tissue ischemia [1, 7]. The disease occurs mainly in patients with severe peripheral atherosclerotic vascular disease, and is usually located on the breast and lower extremities [3]. Other concomitant pathological conditions include hypertension, diabetes mellitus, antiphospholipid syndrome and calciphylaxis [8]. Despite the frequency of some of these diseases, DDA remains a rare condition, suggesting that the association may also be fortuitous. Smoking history seems to be a strong risk factor, at least for lesions occurring on the breast [3]. Iatrogenic DDA has mainly been described in the setting of chronic hemodialysis on the forearm of patients, secondary to arteriovenous fistulas [9]. A case related to the intravenous administration of trabectedin and pegfilgrastim for advanced liposarcoma involved unusual sites such as the lower extremities, elbows, back of the hands and both ears [10].

Involvement of the abdomen has rarely been reported. In one patient, lesions of DDA appeared secondary to abdominoplasty, whereas another patient suffered from immune dysfunction without evidence of occlusive vascular disease [4, 5]. Our patient had a history of obesity, dyslipidemia and hypertension, all of which represent risk factors for vaso-occlusive disease. The ischemic etiology of DDA was further supported by the development of myocardial infarction one month before the appearance of the cutaneous lesions. In addition, as hypothesized for cases occurring on large pendulous breasts, recurrent traumatism over a fat-rich area could also contribute to neangiogenesis, particularly in patients with a procoagulant state or vascular damage, as our case.

In conclusion, DDA is a rare condition that should be readily diagnosed by clinicians. Recognition of risk factors and their management, with restoration of sufficient vascular supply to the affected areas, is crucial for the management of this condition.


1 Division of Dermatology, 
2 Dermatopathology Unit, 
San Gallicano Dermatological Institute, Via Elio Chianesi 53, 00144 Rome, Italy 
3 Dermatopathology Research Unit, Medical University of Graz, Graz, Austria

<carlocota@yahoo.it>