

Case Report

Bier Spots on the Face: Case Report

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Abstract

Bier spots (BS) are asymptomatic, irregular, hypopigmented macules on an erythematous background and are usually found on the arms and legs. We describe the presence of BS on the face that is unusual, and as far as we know, this is the second case report presented on the face in the English literature.

Case Presentation

A 40-year-old man presented to our clinic with about 4-month history of asymptomatic white spots on the left side of his forehead which is noticed by his wife. He observed that the lesions become more visible when he was in the head-down position. There were no similar lesions on the any other parts of the body including lower extremities. He didn't report any triggered factors such as exercise, cold or insomnia. He did not smoke or drink alcohol. His family and medical history was unremarkable. He had been treated with itraconazole without improvement for the diagnosis of pityriasis versicolor at another hospital. Physical examination showed multiple hypopigmented irregularly shaped patches distributed over the left side of forehead and cheek, the skin between white patches was mild erythematous (Figure 1a). In the upside down position, the macules were more prominent when the surrounding skin became more erythematous and similar lesions were seen on the other side of forehead and on the right cheek (Figure 1b), but did not disappear completely when the head was raised. No changes were detected with the wood light inspection. Lesions became indistinguishable on diascopy. Laboratory investigations including complete blood count, erythrocyte sedimentation rate, kidney and liver function test and antinuclear antibody revealed no abnormality. He had no other complaints suggesting vascular disease. Cardiovascular examination, electrocardiography and echocardiography were also normal. A diagnosis of BS was made based on clinical findings.

Discussion

Bier spots are asymptomatic, hypopigmented macules with erythematous background, first described in 1898 by Bier [3]. It is most commonly occurring in young adults ranging from 20-40 years of age [1,2]. Although this disease is usually seen on the extensor surface of

the upper and lower extremities, our patient our patient had facial lesions. We found only one article published in the British literature that from our country. Yildiz et al. [1] reported that 33-year-old man with BS was referred a 4-year history of asymptomatic, white spots on his face. Their case also had insomnia, alopecia areata, epilepsy and deep venous thrombosis. He had been using coumadin for six months. In this case the lesions had disappeared in 10-15 second after he elevated his head [1]. The spots almost disappeared completely with elevation of the limbs [1,2,4,5]. Unlike our patient, BS did not disappear completely. Bier spots are benign physiological vascular changes thought to be caused by vasoconstriction of small vessels. It has been reported that erythematous areas show vasodilation and pale areas show vasoconstriction. It should be kept in mind that the diascopic examination method is important in the diagnosis. Diascopic examination cause blanching of surrounding skin with the temporary disappearance of erythema with compression of the vessels. BS are usually easily diagnosed with clinical examination, however can be confused other hypopigmented macules such as nevus anemicus, vitiligo, pityriasis alba and tinea versicolor [2,5,6]. Our patient also received tinea versicolor treatment.

Although its etiology is not known, its association with some diseases such as including palmar hyperhidrosis, pregnancy, deep vein thrombosis, cryoglobulinemia, scleroderma renal crisis, aortic abnormalities, Peutz-Jeghers syndrome, alopecia areata has been reported [1,2,4].

Conclusion

Recognizing of the disease is important to avoid ineffective treatments. As BS is often asymptomatic and idiopathic, no treatment is required.

References

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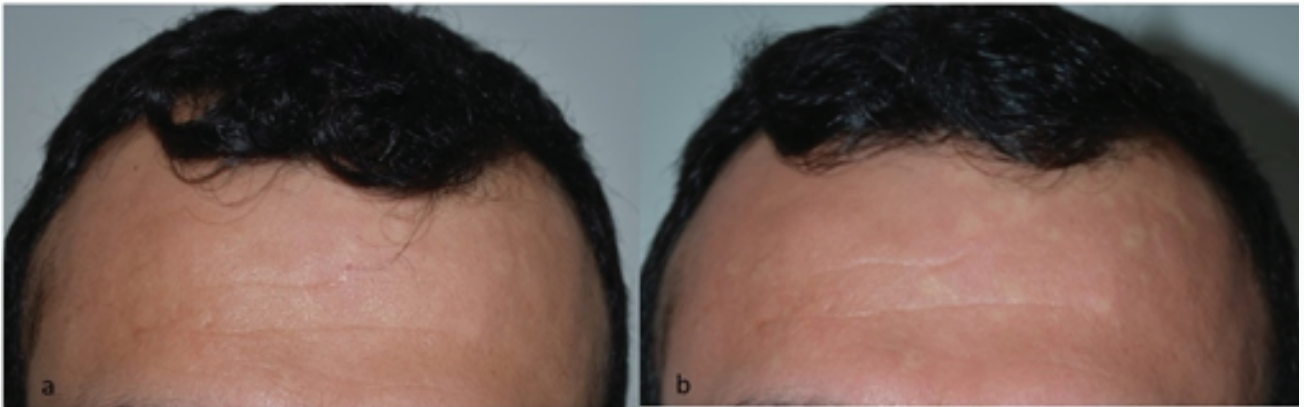


Figure 1a and b: The appearance of sitting position and b. after upside down position.