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Letter to Editor Open Access

Bier Spots with Characteristic Clinic Presentation: Case Report

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Dear Editor,

Bier spots (BS) were first described in 1898 by Bier and detailed research by Lewis in 1927 [1,2]. There is no certain information about prevalence [2]. It is usually seen in people 20 to 40 years old young adults and is more common in women than man. Pediatric cases were reported [2]. BS are also called physiologic anemic macules, angiospastic macules, exaggerated physiologic speckled mottling of the skin [1]. Clinically the lesions appear as transient, small, white macules with surrounding blanching erythema. Lesions are usually found on the arms and legs [2]. There are some theories about the diseases pathogenesis. BS are thought to be an anatomic and functional damage on little cutaneous vessels dependent on venous hypertension [3]; an exaggerated physiological, vasoconstrictive response induced by venous stasis associated hypoxia [4]; failure of the venoarteriolar reflex in dermal ascending arterioles in dermal ascending arterioles in response to venous filling [5].

Sixteen years old man presented to our department with asymptomatic, small, hypopigmented macules distributed symmetrically on his forearms. There was also mild edema and erythema. He had no familial vascular disease history. Physical examination was normal. Arterial blood pressure from both arms was 110/70 mmHg. In dermatologic examination multiple small hypopigmented macules were seen on the edematous and erythematous ground, placed in both forearms and hand dorsal aspects. Lesions were appeared when extremities were placed in a dependent position of Figure 1A and disappear when limbs were raised in Figure 1B.

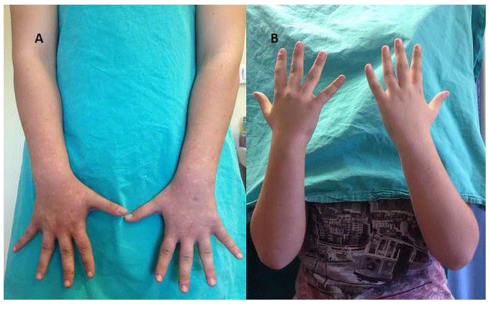

Figure 1: A: Lesions appear when extremities were placed in a dependent position, **B**: Lesions disappear when limbs were raised.

Lesions were also disappeared under diascopy. There was no change in wood examination. Laboratory tests for hemogram, PT, PTT, sedimentation, ANA, Anti-ds DNA, Anti-Scl 70 and cry globulin were normal. We investigate the other systemic conditions by physical examination and laboratory. There were no any findings. On the basis of the characteristic clinical manifestations, idiopathic BS was diagnosed. 6 months follow-up there was no regression.

Bier spots typically appear with venous congestion when patients stand and disappear if venous flow is enhanced by elevation of affected extremities. Physical examination is enough for diagnose [1,2]. BS need to differentiated other white macules such as vitiligo, pityriasis versicolor, pityriasis alba, post-inflammatory hypo-pigmentation, idiopathic guttate Hypomelanosis, nevus anemicus. Vitiligo is excluded with its straight border and more visibility under wood light; pityriasis versicolor is excluded with native examination; post-inflammatory hypopigmentation is excluded without any change with position; nevus anemicus is excluded with no erythematous reaction to scratching with a sharp object because of defective adrenergic receptors and vasoconstriction [6]. BS usually has physiologic cause. But it has rarely been reported in association with conditions such as scleroderma renal crisis, pregnancy, palmar hyperhidrosis- sis, insomnia, tachycardia, coarctation of the aorta, hypoplasia of the aorta, thrombophilia, varicosity, lymphoma, lichen planus, alopecia areata, Peutz-Jeghers syndrome [1,2].

The case was evaluated in the light of current literature because of its typical clinical appearance. We noticed to investigate other systemic conditions and remember the disease with typical clinical findings.

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