



LETTER TO THE EDITOR

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A rare manifestation of giant cell arteritis: Bilateral scalp necrosis

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Abstract

This study investigated the anxiety and depression levels in hospitalized healthy pregnant and pregnant with gestational diabetes mellitus (GDM) before the cesarean section. This case control study included 64 healthy pregnant (control) and 26 pregnant with GDM (case). Patients were assessed with the form of a socio-demographic and clinical characteristic and Hospital Anxiety Depression Scale (HADS). The mean age was 35.5±5.1 years in the case group and 29.4±4.3 in the control group. There was a significant difference between pregnant women with GDM and healthy pregnant in terms of total anxiety, total depression, psychomotor agitation, restlessness, laughing and seeing funny things, and being cheerful. 21% of the pregnant with GDM and 15% of the healthy pregnant had anxiety. Also, 34% of the pregnant with GDM and 23% of the controls had depression. Anxiety and depressive symptoms should be considered for hospitalized pregnant women with GDM before the cesarean section.

Keywords: Gestational diabetes mellitus, anxiety, depression, cesarean section

Dear Editor

Giant cell arteritis (GCA) is a chronic granulomatous vasculitis associated with severe complications such as loss of vision, rarely scalp necrosis [1]. We presented an elderly patient who had bilateral scalp necrosis and diagnosed GCA.

A 79-year-old male patient with a history of hypertension and atrial fibrillation presented a two week history of painful pustules on an ecchymotic background without necrosis in the bilateral frontotemporal region (Figure 1a). He also had severe headache. He was using antiarrhythmic, anticoagulant, and antihypertensive drugs, not using warfarin. Valacyclovir was started with a suspicion of herpes simplex. Herpes simplex virus and Varicella zoster virus PCR were resulted negative.

In the controls, bilateral necrotic ulcerations were observed (Figure 1b, 1c). The patient also had jaw claudication but didn't report any visual symptoms. Temporal arteries were tender. Erythrocyte sedimentation rate (ESR) was 117 mm/h, C-reactive protein (CRP) was 27 mg/dL (range 0–0.50mg/dL). Longitudinal and transverse plane ultrasonography show a hypoechoic 'halo sign' due to periarterial edema surrounding the temporal artery (Figure 2). No blood flow is observed in the temporal artery in color Doppler ultrasonography. The patient was consulted to the rheumatology department with the suspicion of bilateral temporal arteritis. The diagnosis of temporal arteritis was made with clinical, laboratory and imaging findings such as advanced age, new onset headache, jaw claudication, temporal artery tenderness, high ESR and halo sign. Then immediately 1mg/kg/day methylprednisolone was initiated. Within one day of therapy, his complaints such as headache had improved dramatically. Temporal artery biopsy wasn't performed because the patient didn't want it and the diagnosis was clear clinically.

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GCA is a chronic granulomatous vasculitis of medium and large vessels. It usually affects the temporal arteries [1]. The etiology of GCA isn't entirely understood. Its prevalence increases with age.

It's almost seen in patients older than 50 years old [1]. GCA is commonly associated with new-onset headache, jaw claudication, scalp tenderness, fever, malaise, weight loss, polymyalgia, and vision loss [2].

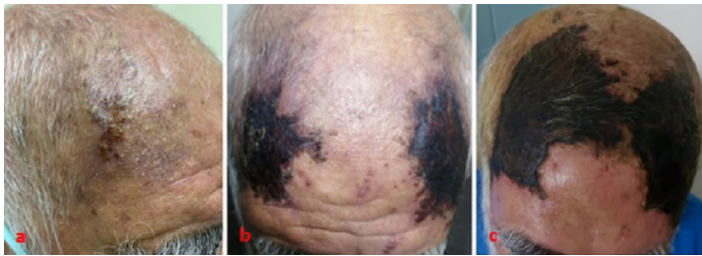


Figure 1. a; Pustules ecchymotic background without necrosis in the bilateral frontotemporal region. The same lesion was on the contralateral side. b,c: Bilateral necrotic ulcerations

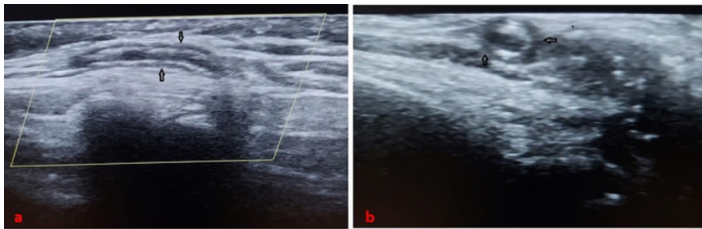


Figure 2. Longitudinal and transverse plane ultrasonography show a hypoechoic 'halo sign' due to periarterial edema surrounding the temporal artery.

Vision loss is the most feared complication. Scalp necrosis is another dramatic but rare complication [1,3].

In 1946, Cooke et al. described the scalp necrosis associated with GCA firstly [4]. One hundred or further cases have been reported in the literature by the now [1,3].

Because of the scalp is a well vascularized, only occlusion of all supplying arteries can cause scalp necrosis. That's why, scalp necrosis in GCA shows to extensive vessel involvement and it is also associated with an increased mortality [1,5]. Prompt diagnosis and early treatment of this cutaneous complication are important to preventing other devastating complications such as vision loss.

The most feared complication of GCA is vision loss. Interestingly, patients with scalp necrosis are more associated with vision loss and also increased mortality [1]. At first, the scalp lesions may not be recognized as GCA. Patients with scalp necrosis experience about one month diagnosis delay. Therefore, scalp lesions associated with GCA may complicate the diagnosis [1].

In diagnosis, imaging methods can be used. A hypoechoic halo sign can be seen on Doppler ultrasound, with a sensitivity of 68% and specificity of 91%, and 100% specificity for bilateral halo sign [2].

As a result, scalp necrosis in GCA is a rare but dramatic complication reflecting severity marker of disease. These patients also have higher risk of vision loss. Even though scalp necrosis in GCA is exceptional, a high level suspicion must be held for this cutaneous complication to initiate early treatment and avoid vision loss.

Conflict of interests

The authors declare that there is no conflict of interest in the study.

Financial Disclosure

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Patient informed consent

Consent was obtained from the patient.

References

1. Tsianakas A, Ehrchen JM, Presser D, Fischer T, Kruse-Loesler B, Luger TA, Sunderkoetter C. Scalp necrosis in giant cell arteritis: case report and review of the relevance of this cutaneous sign of large-vessel vasculitis. *J Am Acad Dermatol.* 2009;61:701-6.
2. Younger DS. Giant Cell Arteritis. *Neurol Clin.* 2019;37:335-44.
3. Akram Q, Knight S, Saravanan R. Bilateral scalp necrosis as a rare but devastating complication of giant cell arteritis. *Clin Rheumatol.* 2015;34:185-7.
4. COOKE WT, CLOAKE PC, et al. Temporal arteritis; a generalized vascular disease. *Q J Med.* 1946;15:47-75.
5. Dummer W, Zillikens D, Schulz A, Bröcker EB, Hamm H. Scalp necrosis in temporal (giant cell) arteritis: implications for the dermatologic surgeon. *Clin Exp Dermatol.* 1996;21:154-8.