Idle gossip about validity of intralesional steroid injection in treating central giant cell granuloma

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Abstract
Treating central giant cell granuloma (CGCG) via intralesional injection of steroids was proven effective in some cases. Later, clinicians have preferred this treatment modality to surgical intervention for it avoids gnathic/bony disfigurement. Advocating this non-surgical therapy, several papers and reviews have recommended putting it into action as the first line of treatment, alone or combined with other treatment options, especially in treating aggressive CGCG. Other authors have reported inaccurate information to validate this approach. This paper scrutinizes, in retrospect, the infelicities about treating CGCG via intralesional injection of steroids and concludes that intralesional steroid injection is useful ONLY in treating non-aggressive CGCG and peripheral giant cell granulomas.

Keywords: Triamcinolone, cushing’s disease, giant cells, central granuloma, intralesional injection, intralesional steroid, CGCG

Introduction
Central giant cell granuloma (CGCG) of the jaw is a lesion characterized histologically by multinucleated giant cells in a background of ovoid to spindle-shaped mesenchymal cells. Since the WHO has approved the successful attempts of treating central giant cell granuloma (CGCG) via intralesional injection of steroids in some cases [1], this treatment modality was promoted to be preferred to surgical intervention for it avoids gnathic/bony disfigurement [2]. Moreover, Osterne et al., [3] have conducted a would-be “meta-analysis” of 14 papers to highlight the efficacy of using intralesional injection of corticosteroid, especially intralesional triamcinolone acetonide (ITA), and to recommend its use for it is totally safe and non-invasive. Complicating matters, the duration of recruiting ITA in treating has ranged from weeks to years with determining no standards [3].

Discussion
Recently, non-surgical treatment of CGCG has been advocated by “some” clinicians with varying degrees of success. Intralesional triamcinolone, alone or combined with denosumab, or interferon, was used to reverse the osteolytic effect of CGCG [4-7]. Other clinicians, however, have reported inaccurate information about treated cases of CGCG [8-10].

This paper aims at focusing light on some glaring errors in tackling the topic of non-surgical treatment of CGCG. First, the meta-analysis study was performed using a very limited number of cases. Its recommendation of recruiting intralesional steroid injection as the mainstay treatment cannot be accepted. Second, intralesional steroid injection failed to achieve the desirable effect in several cases. Thus, the intralesional steroid injection should be only a candidate. Third, fake cases of CGCG were reported and approved [8-10]. This allowed for fake serious complications of ITA to be considered. Fourth, overlapping between CGCG and giant cell tumor (GCT) thwarts the diagnostic issues and therapeutic implications.

Tarsitano et al., [8] have reported unmatched clinical and radiological images for their treated case of CGCG. The provided panorex images of the submitted case show no trace of the orthodontic “METALLIC” wire and brackets which are present in the clinical picture. The CT images of the presented case do not show any metallic brackets either. At least, the initial radiographic pictures, if they belong to the described case, should have revealed such metallic brackets. This suggests that such radiograph images do not pertain to the giant-cell-containing figure.

El Hadidi [9,10] has reported treating a case by injecting, TWICE WEEKLY, what is equivalent to 30 mg of (ITA) for three months. There, the treatment was shifted to surgical removal after detecting a “cushinoid” appearance on the patient. Injecting 30 mg of ITA resulted in a monthly accumulation of 400 mg of ITA. According to Fredman and Tenenhaus [11], the optimal...
To conclude, CGCGs must be differentiated from GCT. The diagnosis of Cushing's disease requires a comprehensive approach, including glucocorticoid measurement and imaging studies, to rule out any exogenous administration of these substances. El Hadidi's case highlights the importance of considering endogenous sources of Cushing's syndrome, as well as the potential for misdiagnosis of CGCG as a neoplastic lesion.

### References

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