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CASE REPORT

Skin depigmentation and subcutaneous fat atrophy after crorticosteroid injection for lateral epicondylitis in two elbow

Lateral epikondilitte kortikosteroid enjeksiyonu sonrası iki dirsekte gelişen deri depigmentasyonu ve subkutan yağ atrofisi

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Summary

Lateral epicondylitis is the most common elbow problem in adults. Corticosteroid injection for the treatment of lateral epicondylitis is a frequently used method of conservative management. A 43-year-old woman was referred to our clinic with a 6-month history of pain along the lateral side of her right and left elbow. She had been treated with 20 mg Triamsinolon heksasetonit to the right and left elbow for lateral epicondylitis with the resistance of pain After 3 weeks of the injection, the pain was completely relieved. The patient was able to move easily her elbow within normal limit. Examination also revealed depigmentation of the skin and atrophy of subcutaneous fat over the lateral epicondyle of both elbows. In the treatment of lateral epicondylitis, corticosteroid injection can be used for alternative conservative treatment. Depigmentation or subcutaneous tissue atrophy may occur inappropriate technique or excessive cortisone dose.

Keywords: Corticosteroid; injection; lateral epicondylitis.

Özet

Lateral epikondilit, erişkinlerde en sık rastlanan dirsek sorunudur. Kortikosteroid enjeksiyonu, konservatif tedavide sık kullanılan bir yöntemidir. 43 yaşındaki bir kadın, sağ ve sol dirseğinin lateral yanındaki 6 aylık ağrı hikayesi ile kliniğimize sevk edildi. Sağa ve sol dirseğe 20 mg triamsinolon heksasetonit ile tedavi edilmiş ve ağrı 3 hafta sonra tamamen düzelmiş. Her iki dirsekte eklem hareket açıklığı normaldi. Muayene de ayrıca her iki dirsekin lateral epikondilinde ciltte depigmentasyon ve deri altı yağda atrofi saptandı. Lateral epikondilit tedavisinde kortikosteroid enjeksiyonu alternatif konservatif tedavi olarak kullanılabilir. Depigmentasyon veya subkutanöz doku atrofisi uygun olmayan teknikle veya aşırı kortizon dozunda ortaya çıkabilir..

Anahtar sözcükler: Kortikosteroid; enjeksiyon; lateral epikondilit.

Introduction

Lateral epicondylitis commonly known as "tennis elbow" is a tendinopathy that affects the forearm extensor muscles (often the extensor carpi radialis brevis muscle tendon), which is a result of repetitive and extreme coercive movements made with arms and elbows. It is generally seen in the dominant arms in working people.[1,2] Treatment for this condition may include interventions such as pain medication, physical therapy, ESWT, and exercise, as well as corticosteroid injections, acupuncture, and surgical treatment.[3] However, the available evidence for the efficacy of these treatments is limited. Corticosteroid injection is a commonly used conservative treatment method in the treatment of epicondylitis.[4] Side effects of cortisones include post-injection pain, tendon rupture, benign skin changes, and infection. Depigmentation or subcutaneous tissue atrophy occurs in overdose or repeated doses. Infection after injection is the most important but very rare complication.[5] We discussed a case of fat and skin atrophy following cortisone injection due to the diagnosis of lateral epicondylitis.

Case Report

A 42-year-old female patient presented to our outpatient clinic with complaints of both elbows pain. The physical examination was painful with slight

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palpation on the elbow. The patient had full active and passive ranges of motion and were pain-free at elbows. We learned that the patient was exposed to trauma a few days ago. At the examination of the elbow, atrophy and white-colored depigmented area of about 1 cm^2 around the lateral epicondyle of both elbows was observed (Fig. 1, 2). In his detailed history, 6 months ago, he learned that 1 ml of cortisone injection was made in both elbows due to lateral epicondylitis in the orthopedic department. There was no pain with palpation. The cozen's test was negative. There was no abnormality in the patient's laboratory tests. The patient stated that he was injected 6 months ago with NSAID and wrist splint, which had pain in the elbow, but he did not have any elbow pain at the moment. The patient was given analgesic treatment for wrist pain. After 3 months later there was no pain on his both arms.

Figure 1. Skin depigmentation and subcutaneous fat atrophy in the right elbow.

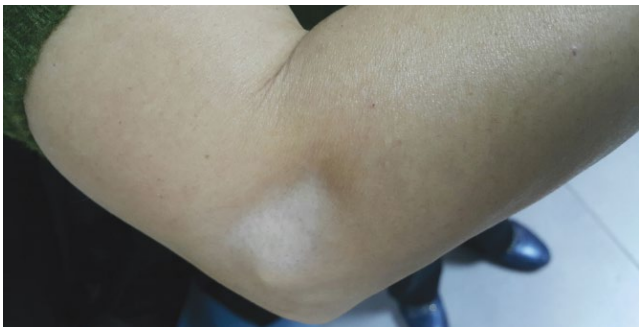

Figure 2. Skin depigmentation and subcutaneous fat atrophy in the left elbow.

Discussion

Corticosteroid injections, which are frequently used in the treatment of lateral epicondylitis, have been shown to be very effective in some studies, and some studies have shown deleterious effects. [6,7] In our case, although the efficacy of cortisone treatment was seen on pain, its complications were noticed in the long term. Beyzadeoğlu et al.[8] found skin and subcutaneous fat atrophy around the medial epicondyle after methylprednisolone injection in a patient with medial epicondylitis. Unlike our case, there were two cortisone deposits on the flexor aponeurosis on the upper part of this atrophy and operated. No pain or restriction was observed in the control performed 3 years after operation. In a study on investigating the long-term effect of cortisone injection in lateral epicondylitis, at the end of 26 weeks, injection therapy showed more symptomatic effect than placebo and non-treated group. They thought that these findings were due to the effects of inhibiting collagen synthesis, tenocyte proliferation, and tenocyte activity.[9,10] Smidt et al.[7] showed that in the treatment of lateral epicondylitis, cortisone injection was the most effective treatment modality in the short term. In other studies, cortisone treatment of lateral epicondylitis was similarly considered as a safe and effective treatment for short-term efficacy, but they did not reach sufficient evidence for long-term efficacy.[11]

Peppering injection technique, the elbow is positioned in a 90 degree flexion, with the hand resting on the hips. Anatomic landmarks are palpated prior to injection. These are soft tissue at the center of the triangle formed by lateral olecranon, radial head, and lateral epicondyle. An 18-gauge needle is introduced immediately anterior and distal to the lateral epicondyle at the point of maximum tenderness. By inserting, injecting, withdrawing, slightly redirecting, and reinserting without emerging from the skin, the area literally is peppered with small injections.[12] Okcu et al.[13] showed that the peppering method is much more effective than the single method in a study of comparing injection techniques. They used 1 ml betamethasone and 1 ml prilocaine on the lateral epicondyle at the point of maximum tenderness In our patient, a complication was seen at the same time in both elbows. We do not know which injection technique was used in our patients treatment.

In the literature, we did not find any case (skin depigmentation and subcutaneous fat atrophy) which were reported in both elbows.

In our case complications of cortisone injection (skin and fat atrophy) were seen in the late period. The patient was not aware of the complication and we could arrive at the awareness of these complications after detailed anamnesis. Despite the few reports of complications after cortisone injection in the literature, we thought that our complications were due to cortisone, considering the fact that the cases were similar to ours and the side effects of cortisone were considered.

Conclusion

Although periarticular injections of cortisone in the lateral epicondylitis are known as an alternative conservative treatment, side effects and complications should be known. We think that cortisone injections, which are not done with proper injection techniques as in this case, may have long-term complications. Cortisone injection with inappropriate techniques may cause complications and it should be kept in mind that injections should not be given on the same day.

Informed Consent: Written informed consent was obtained from the patient for the publication of the case report and the accompanying images.

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