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Olgu Sunumu

A Case of Reactive Arthritis Developed After Tetanus Vaccine

Tetanos Aşısı Sonrası Gelişen Reaktif Artrit Olgusu

Fatma Nur KESİKTAŞ*, Mucahit YEMİSEN, Kerem GÜN***, Murat ULUDAĞ****, Bahar DERNEK*******

**İstanbul Fizik Tedavi Eğitim ve Araştırma Hastanesi*

***Cerrahpaşa Tıp Fakültesi Enfeksiyon Hastalıkları ve Klinik Mikrobiyoloji Anabilim Dalı*

****Emsey Hastanesi*

*****Cerrahpaşa Tıp Fakültesi Fiziksel Tıp ve Rehabilitasyon Anabilim Dalı*

******İstanbul Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi Fiziksel Tıp ve Rehabilitasyon Kliniği*

ABSTRACT

Objective: *Reactive arthritis (ReA) is a kind of spondyloarthropathy. Some ReA can develop after vaccinations. In this report, we presented a case with ReA after tetanus vaccination.*

Case: *29-year-old woman with right ankle swelling was applied to outpatient of physical medicine and rehabilitation department two days after tetanus vaccination. Acute phase reactants were elevated. Non-steroidal anti-inflammatory drugs and steroids were given for arthritis. She was followed for six months.*

Results: *Drug combination was continued for two months. After the third week of steroid therapy, the ankle of patient was normal. And steroid dose was reduced and stopped at the end of the two months. There was no reccurence at the end of six months.*

Conclusion: *ReA due to tetanus vaccination is a rare event. Patients must be informed and must be followed for the developement of ReA after tetanus vaccination.*

Keywords: *reactive arthritis, vaccination, tetanus, spondyloarthropathy, steroids*

ÖZ

Amaç: *Reaktif artrit (ReA) spondiloartropatiler grubunda yer alır. Bazı ReA olguları aşılamadan sonra ortaya çıkabilir. Bu makalede tetanos aşılaması sonrasında gelişen bir olgu anlatılmıştır.*

Olgu: *Yirmi dokuz yaşında kadın tetanoz aşısı uygulanmasının 2. gününde sağ ayak bileği şişliği ile fiziksel tıp ve rehabilitasyon kliniğine başvurdu. Akut faz reaktanları yüksek bulunan hastaya artrit için nonsteroid antienflamatuar ilaçlar ve steroid verildi ve hasta 6 ay izlendi.*

Bulgular: *Medikal tedavi iki ay verildi. Streoid kullanımının 3. haftasında hastanın ayak bileği normaldi. Altıncı ay sonunda hastalık tekrarlamadı.*

Sonuç: *Tetanos aşısı sonrası ReA görülmesi nadirdir. Hastalar tetanos aşısı sonrasında bilgilendirilmeli ve izlenmelidir.*

Anahtar kelimeler: *reaktif artrit, aşılama, tetanos, spondiloartropati, steroid*

INTRODUCTION

Reactive arthritis (ReA) is an acute or subacute, aseptic, nonsupurative, inflammatory arthritis and belongs to a group of spondyloarthropathies. It is typically asymmetric and oligoarticular, more often affecting the joints of the lower extremities [(1)]. The most important difficulty in diagnosis is lack of a specific diagnostic test [(2)]. Some cases of ReA development after vaccinations were published in the past years [(3-12)]. Here, we present a case with ReA following tetanus vaccination.

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Yazışma adresi: Doç. Dr. Fatma Nur Kesiktaş, Atakent Mah. Avrupa Konutları 1, 8. Blok 27 No, Küçükçekmece / İstanbul
e-posta: nur.kesiktas@gmail.com

CASE REPORT

A 29-year -old woman was admitted to our clinic with right ankle swelling and pain 2 days after a prophylactic tetanus vaccination was applied because of a hand cut. The patient could not step on her right leg and had difficulty in walking. She had neither history of trauma, inflammatory diseases nor a family history of a rheumatic disease. Her physical examination revealed a swollen, red ankle and decreased range of motion.

Her laboratory findings were as follows: leucocytes 6500/mm^3, erythrocyte sedimentation rate 37 mm/h (ESR) and C reactive protein 42.3 mg/dl (CRP) (normal <5 mg/dl). Serum C3 and C4, liver and renal function tests, urinalysis, serum antistreptolysines and uric acid were within normal ranges. Anti- nuclear antibody, rheumatoid factor, HLA-B27 tests and serologies for Brucellosis, Hepatitis B and C were negative. There was no specific finding on direct radiographic evaluation of the ankle (Figure 1).

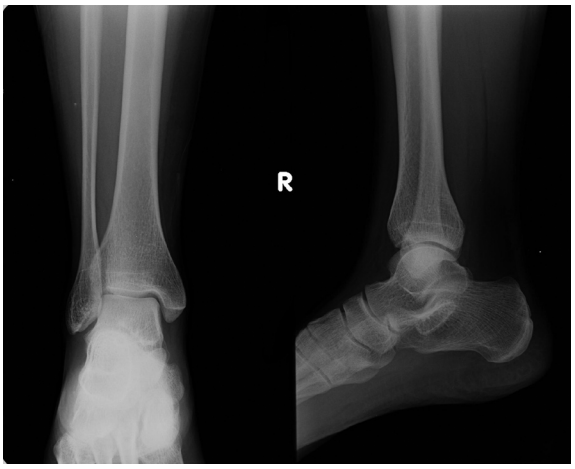

Figure 1.

Indomethacin 75 mg was prescribed to the patient whose pain visual analog scale (VAS) was 89 mm. One week later, ESR and CRP values of the patient were still high and she was still complaining about pain. Eight milligrams metilprednisolone was added to the treatment because of the patient's ongoing clinical symptoms. At the third week of metilprednisolone treatment the ankle of the patient was normal, pain VAS was 50 mm and ESR and CRP values were at the upper limit of the normal value. The metilprednisolone dosage was tapered. At the end of the second month, while the patient was on indomethacin 25 mg and metilprednisolone 2 mg treatment, her symptoms were completely regressed. We discontinued the treatment and no recurrence of her complaints were observed at the 6th month of the follow- up period.

DISCUSSION

Reactive arthritis can be defined as a nonpurulent joint inflammation and can be seen after an infection or a non-infectious cause such as inflammatory bowel disease. A nonpurulent, asymmetrical, transitory oligoarticular arthritis involving large and small joints is the most common form of arthropathy and HLA- B27 is positive in 75% of these patients [7].

ReA after vaccinaition is a rare adverse event. To date, a few cases of arthropathy associated with vaccinations such as Hepatitis B, BCG, MMR, Influenza, Tetanus, typhoid, rabies and combined dyphteria, tatnus and pertussis were reported [3-12]. The exact mechanism of the ReA after vaccination remains poorly understood. However, vaccine itself, may act as a triggering peripheral agent in the genetically susceptible host, which causes reactive events [13,14]. HLAB27 expression may have a role in the developement of ReA caused by vaccination, but, it is not a rule for the development of ReA [15]. HLAB27 was also negative in our patient.

ReA after tetanus vaccination is reported in only five papers in the literature [8-12]. In most of the cases, the involvement is monoarthicular and develops in large joints within a few days after vaccination and resolution of symptoms takes long time [8]. In our case, arthritis also developed in only foot ankle two days after tetanus vaccination and improved within two months with steroid treatment.

Vaccination is a cheap and easy way for disease protection. However, some severe adverse events may develop after vaccination. ReA due to tetanus vaccination is a rare event. Patients must be informed and must be followed for the development of ReA after tetanus vaccination.

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