

Gemifloxacin-associated fever, maculopapular rash and elevated liver enzymes: A case report

Gemifloksasin ile ilişkili ateş, makülopapüler döküntü ve karaciğer enzimleri yüksekliği: Olgu sunumu

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ÖZET

Giriş: Fluorokinolonlar 25 yıldan daha uzun süredir kullanılmakta olan geniş spektrumlu antibiyotiklerdir. Jenerasyon sayıları arttıkça etkinlik spektrumu da artmıştır, ancak yan etkilere dikkat etmek gereklidir ve bu ilaçlar gerçek endikasyonları dışında kullanılmamalıdır. Burada ilaçla ilişkili yan etkilerin geniş yelpazesini vurgulamak ve antibiyotiklerin rasyonel kullanımına dikkat çekmek üzere bir gemifloksasin toksisitesi olgusu sunulmaktadır.

Olgu sunumu: Burada, nazal polip nedeni ile ameliyat hazırlığı yapılmakta iken profilaktik olarak gemifloksasine 320 mg. tb kullanımı sonrasında, yüksek ateş, ışığa duyarlılık, ciltte makulopapüler döküntüler ve yüksek karaciğer enzimleri nedeni ile acil servise müracaat eden 33 yaşında bir erkek hasta sunulmaktadır. Yapılan geniş incelemede başka herhangi bir enfeksiyöz ya da metabolik neden saptanmadı. Hastanın klinik durumu ilacın kesilmesinden sonra, herhangi bir tedavi işlemi yapılmaksızın kendiliğinden tamamı ile düzeldi.

Sonuç: Bu olgu klinisyenlerin antibiyotik kullanırken ne kadar dikkatli olmaları gerektiğini vurgulamaktadır. Çeşitli enfeksiyon hastalıklarının tedavisi için gemifloksasin ve diğer fluorokinolonların kullanımı giderek artarken artan bir dikkat ve kontrol sürdürülmelidir. Zira bu ilaçlar nadir olarak bildirilen yan etkilerin olasılıklarını artırabilmektedir.

ABSTRACT

Introduction: Fluoroquinolones are wide spectrum bactericidal antibiotics being used for over 25 years. Increasing number of generations increased spectrum of efficacy, but caution is needed for side effects and these medications should not be used without true indication. We report with a case a gemifloxacin toxicity to underline the wide spectrum of medication-related adverse effects and to draw attention to rational use of antibiotics.

Case presentation: We report a 33-year-old man presented with high fever, photosensitivity, maculopapular rash and elevated liver enzymes after prophylactic use of gemifloxacin 320 mg tablet, in the course of preparation for surgery for nasal polyp. A thorough diagnostic investigation did not reveal any other metabolic or infectious etiology. His clinical findings resolved completely after cessation of the medication without any definitive treatment.

Conclusion: This case highlights the need for clinicians to be cautious when using antibiotics. Continued care and caution is recommended as gemifloxacin and other fluoroquinolone usage is increasing for various infectious diseases, since these medications may increase likelihood of adverse effects, which are reported infrequently.

INTRODUCTION

Quinolones are chemically obtained synthetic medications. Starting from the incidental production of nalidixic acid during synthesis of chloroquin, they have been a large family of wide spectrum chemotherapeutics ever since (1). They have a large list of indications from community acquired pneumonias to nosocomial pneumonias, from complicated urinary system infections

to bone infections and from gastrointestinal infections to pelvic infections (2). Because quinolones, especially the new generation forms, are readily absorbable from the gastrointestinal tract and because the pharmacokinetics of the medication is favorable (e.g. rapid elevation to peak serum values, better tissue distribution, longer elimination time etc), they are commonly used in daily clinical practice. It is important, however, to be aware of the possible

serious side effects of these commonly used medications, which may cause serious organ injuries.

We report a case of gemifloxacin related maculopapular rash accompanied by high fever and elevated liver enzymes to draw attention to this important clinical possibility.

CASE PRESENTATION

A 33-year-old man presented to the emergency department with facial and corporal rash and fever for two days. Ten days earlier he had taken prophylactic gemifloxacin tablets 320 for 7 days, in the course of preparation for surgery for nasal polyp. Skin rashes and fever occurred right after the cessation of the medication and he was seen by a physician who prescribed antihistaminic tablets which were not helpful in controlling either the fever or the rashes two days before his arrival to our hospital. He complained that his rashes increased in these two days and his fever was 38,3 °C in the emergency room. He was admitted to the hospital. His past medical history was non-contributory. Physical examination revealed normal findings except for high fever (38,3 °C), high heart rate (124/min) and conjunctival redness. Laboratory findings were also normal except for elevation of alanin aminotransferase (ALT 96 IU/L, range:15-65). Cultures (urine, throat, blood) and viral markers for hepatotropic viruses were negative as were CMV IgM, Coxsackie A and B IgM, and Rubella IgM. The patient was put on IV fluids and antihistaminics and palliative measures for his fever (e.g. lukewarm bath). Next day his fever started lowering and his rashes were coalescing along with resolution of conjunctival redness and photosensitivity. On the third day his symptoms were normal and he was discharged pending outpatient follow up. His laboratory tests returned to normal the next week after his discharge from the hospital with no fever or rashes.

DISCUSSION

A case for gemifloxacin-related rash, photosensitivity and liver enzyme elevation was consistent with this patient's presentation and with treatment initiation. The search for other reasons in this patient revealed no other probable cause and the patient did not have any symptom progression after the cessation of the medication.

Because of its easy use single dose administration and high bioavailability (>70%) gemifloxacin has found a wide area of usage among medical community dealing with infectious diseases (2); however increasing usage

brought increased side effects such as gastrointestinal intolerance, hypersensitivity reactions, central nervous system reactions etc. (3).

Any kind of antibiotics can lead to medication-related fever and fluoroquinolone related fever cases have been reported (4). Fever in our patient had started right after medication usage and no other causative agent have been revealed with diagnostic work up and gemifloxacin seemed like the only probable cause. Accompanying maculopapular rash is a known adverse effect of gemifloxacin (5). Ball et al has reported such rash with gemifloxacin without severe eruptions (5). Fever and rash resolved completely without any definitive treatment in a few days. Photosensitivity was a mild symptom and lasted shorter than fever and rash and we believe that these symptoms are interrelated.

Pharmacokinetic studies has shown that gemifloxacin is a well tolerated medication and that elevations ALT levels were reported with use of 600 mg gemifloxacin for 6 days (5). This patient used standard dose of the medication (320 mg) for 7 days and elevated ALT level has returned to normal in a week without any other therapeutic intervention which makes us believe that it is related with the medication.

CONCLUSION

This case highlights the need for clinicians to be cautious when using antibiotics. Continued care and caution is recommended as gemifloxacin and other fluoroquinolone usage is increasing for various infectious diseases, since these medications may increase likelihood of adverse effects, which are infrequently reported.

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