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**Myalgia and swelling of interphalangeal joints as side effect of prolonged azithromycin therapy in patient with pelvic actinomycosis- case report**

**Myalgia and swelling of small joints caused by azithromycin**

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## INTRODUCTION

Actinomycosis is a bacterial, slowly progressive infection that can affect virtually any site in the body. Actinomyces normally colonize the mouth, colon and vagina and entrance for Actinomyces in pelvis is ascension via any type of intrauterine contraceptive device (IUCD) [1,2,3,4]. Recommended therapy for actinomycosis is penicillin intravenously for 2-6 weeks, followed by oral therapy with penicillin or amoxicillin for 6-12 months. Tetracycline, erythromycin, minocycline and clindamycin are other suitable alternatives [5,6,7,8,9,10,11].

## CASE REPORT

A 38-years-old woman was admitted to University Hospital of Infectious Diseases with a medical history of fever, epigastric fullness, abdominal distention and pain, with propagation to scapular, lumbar, sacral and coxofemoral regions lasting for two weeks, and causing immobility three days before admission. In her history, 15 years ago IUCD was introduced. Six years ago she underwent gynecological surgery and a diagnosis of actinomycosis was established (in material obtained from pericolic abscess). Antibiotic treatment of gentamicin, metronidazole and ampicillin was administered for six days parenterally and then with erythromycin perorally for next two weeks. IUCD was not removed. On admission to hospital physical examination revealed febrile (37.6°C) and immobile patient, with palpable tender mass 5 cm in diameter in suprapubic region. Laboratory test results show: erythrocyte sedimentation rate (ESR) 20 mm/1<sup>st</sup> hour, white blood cell count (WBC)  $11.7 \times 10^9/l$  with 75% neutrophils in differential, increase of alpha2 fraction of serum proteins (12.1%), other standard parameters such as hemoglobin concentration, platelet count, glucose concentration,

plasma ion levels, renal and liver functional tests, coagulation tests, urinalysis were all normal. CT scan and transvaginal echosonogram revealed a mass (7×5 cm) in pelvis. Pelvic actinomycosis was suspected and high dose benzyl penicillin was administered. IUD was removed. After two weeks therapy, extensive allergic rash occurred. Therapy was continued with clindamycin for seven days (discontinued because of severe postantimicrobial colitis), ceftriaxone for seven days (discontinued because of allergic rash), doxycycline for 37 days (discontinued because of urticaria, dyspnea and cough) and finally with azithromycin (without any other drug in therapy). After 57 days of azithromycin administration (250 mg daily) patient complained of myalgia and swelling of small joints mostly interphalangeal that were swollen, red, tender to palpation and active movement were restricted. All laboratory tests were normal and no high risk antigens in HLA were found. After discontinuation of azithromycin swelling and myalgia regressed completely after four days without any therapy. Patient is followed up with no relapses. After antimicrobial therapy control laboratory tests, transvaginal echosonogram and CT scan were normal.

## DISCUSSION

Although macrolide antibiotics are established in the treatment of actinomycosis there are no data of long term azithromycin administration. Our limited experience with a case where the choice of antibiotics was limited due to allergic reactions, clearly presents that even a prolonged treatment with azithromycin bears very little risk compared to benefit to the patient. Also, there a no data that azithromycin causes swelling of small joints as side effect of therapy, not in animal and human medicine. We report it for the first time.

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