6 lesions required 3 injections to show complete clearance. The patients during the intralesional infiltration of the drug noticed slight pain. After healing, scarring was minimal or absent, but hyperpigmentation was noted in all patients which later disappeared. In the 0.5% group, 65 lesions were treated, 55 lesions of the dry type and 10 lesion of the wet one. Marked improvement or complete clearance was observed in 55 lesions (85%). Only 2 patients showed total clearance after a single injection. However, 24 lesions showed total clearance by 2 injections while 29 lesions required 3 injections to show complete clearance. Regarding controls, 33 lesions were included in this group and were followed-up for 45 days. After the end of follow-up, there was minimal reduction in the size of lesions. Moreover, some lesions especially on the lower limb showed signs of infection. Parasites could be still detected in smear and culture or both at the end of the follow-up period.

In the design of this trial, only acute lesions, which had been present for 12 weeks or less, were included, and the follow up period was 6 weeks. This gave a total of 18 weeks, which is less than the healing time reported for lesions caused by both *L. major* (9 months or more) and *L. tropica* (one year or more).[8] In addition, a number of lesions were left untreated and followed-up as controls to demonstrate that no self healing took place within the follow-up period. It can therefore be assessed that the healing which occurred after drug administration in this trial is due to the effect of the drug and not due to self-healing lesions. The results of this trial show that intralesional infiltration with metronidazole gives high cure rate using low concentration (0.5%) or high concentration (5%). However, with higher concentration, healing occurs faster and requires less frequent injections. Metronidazole had been reported as an effective treatment of CL when the drug is orally administered. However, the cure rate is not high and there is the controversy regarding its use.[5,6] This is probably due to the low concentration of this antiprotozoal drug at lesional site following oral route of administration. In case of intralesional infiltration the high cure rate is owed to high concentration of the active ingredient at tissue level.

On the basis of this trial, the use of 5% metronidazole solution, injected intralesionally, in the treatment of CL is highly recommended. The treatment is safe with no serious side effects, gives high cure rates and the final cosmetic effect is very good. Local injections for the treatment of CL are advised when there are few lesions, to avoid systemic side effects, to increase the concentration of drug at the lesional site and to increase its effectiveness and reduce the cost of therapy.

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From the Department of Dermatology and Venereology, College of Medicine, University of Baghdad, Baghdad, Iraq. Address correspondence and reprint requests to Prof. Makram Al-Waiz, Department of Dermatology and Venereology, College of Medicine, University of Baghdad, PO Box 61369, Postal Code 12114, Medical Collection Post Office, Bab Al-Mua'dham, Baghdad, Iraq. Fax. +964 (1) 4250243. E-mail: makram552000@yahoo.com

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Comparison of intravenous aminoglycoside therapy with switch therapy to cefixime in urinary tract infections

Salmieh Noorbakhsh, *MD,* ***Abdolaziz R. Lari,*** *MSc, PhD,* ***Faramarz Masjedian,*** *BSc, MSc,* ***Hamid Mostafavi,*** *PharmD,* ***Reza Alaghehbandan,*** *MD.*

Urinary tract infections (UTI) cause acute morbidity and may result in severe problems, including hypertension and reduced renal function. Diagnosis of UTI is extremely important as prompt treatment could prevent damage. As intravenous (IV) antibiotic therapy is associated with side effects, toxicity, high cost, and long hospitalization period in treatment of UTIs, switch therapy (IV-to-oral antibiotic) is considered to reduce above-mentioned harms. In the present study, we compared the efficacy of IV aminoglycoside

therapy with IV ceftriaxone plus switch therapy to cefixime in children with UTIs.

This prospective randomized clinical study was conducted from February to June 2003. Written consent was obtained from all children's parents. Children aged ≤10-years with UTI were eligible for the study if they required initial parenteral antimicrobial therapy and if the infection was caused by a pathogen susceptible to the study drugs. Criteria for acute pyelonephritis included fever, flank pain or costovertebral angle tenderness, pyuria (≥10 white blood cells), and positive urine culture [10^5 colony forming unit (CFU) of a uropathogen/ml] within 48 hours (h) of enrollment. Patients with any of the following were excluded from the study: history of serious allergy to study therapy, complete obstruction of the urinary tract, perinephric or intrarenal abscess, any rapidly progressive disease, immune-compromising illness or therapy, the need for concomitant antimicrobials, acute hepatic failure, requirement for peritoneal dialysis or hemodialysis, treatment with a systemic antimicrobial agent for ≥24h within 72h prior to the baseline urine culture, creatinine clearance of <30 ml/min, aspartate aminotransferase or alanine aminotransferase levels of >6 times the upper limit of normal (ULN), bilirubin or alkaline phosphatase levels of >3 times the ULN, absolute neutrophil count of ≤1,000 per µl, platelet concentration of <75,000 per µl, hematocrit level of <25%, or coagulation tests of >1.5 times the ULN. Patients were enrolled and divided in 2 groups, A and B. Children in group A (n=30) were treated with IV amikacin (15mg/kg daily) or gentamicin (3mg/kg daily) with ampicillin (100mg/kg daily) for 7-10 days. Patients in group B (n=24) were treated with IV ceftriaxone (50mg/kg daily) for the first 2 days and then switched to cefixime (8mg/kg daily) orally for 8 days. After at least 2 days of hospital or clinic-based infusion therapy, study therapy could be completed in the hospital or at clinic or home. Consistent with current pyelonephritis treatment guidelines,[1] at the investigator's discretion and after 2-3 days of IV therapy, patients could be switched to oral cefixime (8mg/kg daily) if they were afebrile; nausea and vomiting had resolved; signs, symptoms, and leukocytosis had improved; and a urine culture was obtained. Other oral agents were permitted if the patient could not tolerate cefixime or if the causal pathogen was resistant. The suggested total duration of IV plus optional oral therapy was 10-14 days. Patients were evaluated within 24h of enrollment and daily thereafter while on parenteral study therapy. The clinical response was measured on day 3-5 of parenteral therapy, at the discontinuation of IV therapy, 5-9 days post therapy, and 4-6 weeks post therapy. Urine and blood culture were performed at the baseline. All isolates were identified at the site laboratory, and pathogens were tested for in vitro susceptibility to different antibiotics, following the guidelines of the National Committee for Clinical Laboratory Standards.[2] Microbiologic efficacy was assessed at each time point by quantitative urine culture. After at least 48h of study IV therapy, failure was defined as a urine culture with a 10^4 CFU/ml concentration of any uropathogen present in the admission culture at a concentration of 10^5 CFU/ml.

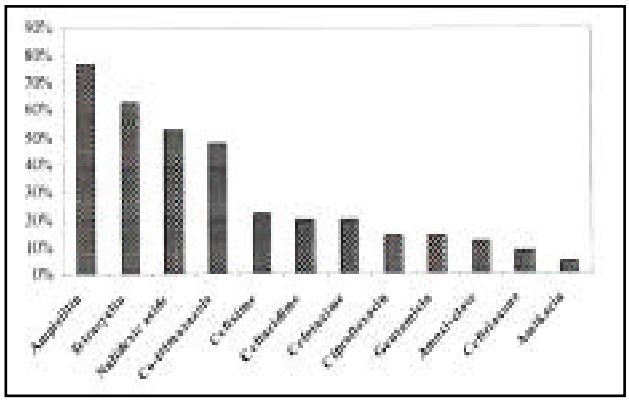

Figure 1 - Antimicrobial resistance pattern.

Baseline demographics and disease characteristics of the 2 treatment groups in the randomized populations were generally similar. *Escherichia coli* and *Klebsiella spp* were the most common microorganisms isolated from the patients. **Figure 1** shows antibacterial resistant pattern in this study. Rate of response (clinically and microbiologically) to IV aminoglycoside therapy in patients of group A was 80% (24/30). Children of group B, who received ceftriaxone and switched to cefixime, had 88% (21/24) response rate. However, there was no statistical significant difference between the rate of response in both groups (p=0.82). Cefixime is a third-generation oral cephalosporin that is highly active against a broad range of gram-negative and some gram-positive aerobic bacteria.[3] In UTIs, it is at least as effective as other usual treatments, and has a low rate of side effect.[3] Several clinical studies have been performed on cefixime in UTIs both in adults and children.[3] Different studies have recently shown that an early switch from parenteral antimicrobials to an oral substitute, provides an effective means of treating different infection diseases in pediatric patients.[4] Also, on the basis of the literature data, cefixime could be indicated in the treatment of UTIs in children either as monotherapy or as switch therapy.[5] In this randomized clinical study, the efficacy and safety of ceftriaxone with a switch to

cefixime were compared with those of IV aminoglycoside therapy for the empirical treatment of UTI, judged by the investigator to require initial therapy with a parenteral antimicrobial agent. The study design was consistent with standard clinical practice. After 2-3 full days of parenteral study therapy, investigators had the option to switch to oral cefixime if the patient had clinically improved. Results of this study show that ceftriaxone with switch to cefixime, 8 mg/kg once a day, was highly effective and equivalent to treatment with IV aminoglycoside therapy. Approximately 88% of patients in treatment group B (treated with switch therapy) had a favorable clinical/microbiologic response assessment at the 7 days post therapy. Although rate of response (clinically and microbiologically) to children of group B, who received ceftriaxone with switch to cefixime, was higher than children treated with IV aminoglycoside (88 versus 80%), there was no statistical significant difference between the rate of response in 2 groups (p=0.82). Although we did not measure psychological, aspects of mother's support during oral therapy at home compared to IV therapy in the hospital, we suggest that oral therapy at home associated with a mother's psychological support could be considered a positive aspect of switch therapy. Switch therapy with cefixime in children with UTIs increases effectiveness and convenience. Switch therapy shortens duration of hospitalization, and decreases costs and risk of nosocomial infections. Cefixime could also be considered as switch therapy in children with UTIs.

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From the Department of Pediatrics (Noorbakhsh), the Department of Microbiology (Lari, Masjedian), Iran University of Medical Sciences, Exir Pharmaceutical Co. (Mostafavi), Tehran, Iran, and from the Division of Research and Development (Alaghehbandan), Newfoundland & Labrador Centre for Health Information, St. John's, NL, Canada. Address correspondence and reprint requests to Prof. Abdolaziz R. Lari, Department of Microbiology, Iran University of Medical Sciences, PO Box 14515-717, Tehran, Iran. Fax. +98 (21) 8054355. E-mail: lari@iums.ac.ir

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The services provided for combined oral contraceptive users in health care centers, Kerman, Iran

Tahereh A. Ganjoei, *MD.*

Combined oral contraceptives (OC) are the most effective reversible form of contraception available. They have also several health benefits on genital system, breast, bones, and others.[1] Some misconceptions regarding the safety of these compounds and also insufficient knowledge regarding their beneficial effects cause irregular use or stopping and consequently the occurrence of unwanted pregnancies. Therefore, physicians and other health care providers should consult their patients regarding safety of these compounds and urge them to take their pills regularly. As the main reason for stopping oral contraceptives is fear of their probable side effects, regular visit and consultation may help the continuity of using OC.[2] Mentioning of health benefits in each visit is necessary. Moreover, taking a complete history, blood pressure and weight measurements, breast, liver and pelvic physical examination and doing Pap smear for early diagnosis of probable problems are necessary. In this descriptive cross-sectional study, the rate of services provided for the combined OC users in the health care centers of Kerman City was evaluated. Sample size was determined in 600 women. Subjects were selected randomly from 33 health care centers. Receiving of OC pills from health centers at least for one year prior to the study was criteria inclusion. Subjects were questioned regarding the control of blood pressure and weight measuring, the examination of breast, liver and pelvis or recommendation for that and Pap smear carried out during the recent year. It should be mentioned that in regard to the physical examination of breast, liver and pelvis, in centers having educated midwives the rate of performed examinations and in centers lacking midwives the rate of recommendations were considered. Data were collected by interviewing subjects and were analyzed by descriptive statistical methods. In order to study the services provided for the combined OC users, 6 factors based on the health center facilities were considered. Blood pressure measuring had been carried out in 500 subjects (83.3%), weight measuring in 506 (84.6%), examination of breasts or recommendation to carry out in 322 (53.7%), pelvis in 120 (20%), liver in 6 (1%) and finally Pap smear that is one of the main responsibilities of these centers and had been performed in only 246 ones