

Abstract

Objective

Our aim was to compare two regimens of antibiotic prophylaxis at the time of repair of obstetric anal sphincter injury. Benefit of long regimen of antibiotic prophylaxis in comparison with short regimen of antibiotic administration haven't been till now proven.

Material and Methods

Women who gave vaginal birth in department of gynaecology and obstetrics of the First Faculty of Medicine of Charles University and Hospital Bulovka from 1.1.2008 to 30.6.2013 and who sustained third – or fourth – degree perineal tears have been enrolled in our trial. All women who fulfilled trial criteria received at the time of repair antibiotic prophylaxis which was cefuroxim (second – generation cephalosporin). This antibiotic has good sensitivity to vaginal gram-positive flora and to rectal gram-negative microorganisms too. Suture technique and following postpartum care have been standardized. All enrolled women were checked 2 weeks and 3 months after delivery. We evaluated subjective and objective parameters of healing of the obstetric perineal injury and 3 months postpartum we looked for symptoms regarding anal incontinence. The Manchester questionnaire was used for evaluation of anal incontinence occurrence.

Results

Incidence of third – and fourth – degree perineal tears was 1,4 % during period of our study. Most frequent were 3a injuries and minimum number of injuries were fourth –degree. By 2 weeks postpartum, we recorded small perineal wound breakdown both in women who received short regimen protocol and long regimen of antibiotic but difference wasn't statistical significant. By 3 months postpartum, no signs of wound breakdown or infection were apparent. We found fewer number of sexual active women in group of short regimen (82,5 % vs. 92,1 %) and more women with dyspareunia in this group (21,2 % vs. 11,4 %) but difference didn't reach to statistical significancy. In all observed domains of the Manchester questionnaire were parameter values higher in the short antibiotic administration. Total 39,5 % of women with the long regimen didn't report any anal incontinence influence on their quality of life and 15 % with short regimen. This finding is statistical significant. RR of anal incontinence development with short regimen of antibiotic prophylaxis compared with the long regimen is 1,4 (CI 1,05 – 1,87).

Conclusions

In our trial it was proven that using of the Manchester questionnaire is more effective to get informations from patients regarding anal incontinence troubles than direct patient asking. Second – generation cephalosporin is antibiotic which is convenient for prophylactic administration at the time of repair third – and fourth - degree perineal tears and its long regimen compared with short regimen significantly decreased anal incontinence development in

later postpartum period. Shortly said the long regimen of antibiotics has better results than their short administration and not only in evaluation of quality of life.

Keywords:

perineal trauma, obstetric anal sphincter injury, antibiotic prophylaxis, anal incontinence, quality of life