

MediCiti INSTITUTE OF MEDICAL SCIENCES(MIMS)

Ghanpur(V), Medchal (M), Medchal-Malkajgiri District-501401, Telangana.

(Under SHARE Medical Care)

(Recognised by Ministry of Health & Family Welfare, Govt.of India)

(No.U.12012/111/2000-ME (P-II), dt : 9th June 2008)

Affiliated to Kaloji Narayana Rao University of Health Sciences,
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FOR IMMEDIATE RELEASE

Title: Ground breaking Study Reveals Effectiveness of Single Dose Antibiotic Prophylaxis in Preventing Surgical Site Infections during Caesarean Section

Medchal, Telangana, India

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In a pioneering prospective cohort study conducted at the MediCiti Institute of Medical Sciences, the Obstetric department, under the leadership of Dr. Kalpana B, has provided compelling evidence supporting the efficacy of single dose antibiotic prophylaxis in preventing surgical site infections (SSIs) during caesarean section (CS). The study, encompassing over 2000 pregnant women, challenges prevailing practices in India, where the administration of multiple doses for several days has been the norm.

Globally, caesarean section is the most prevalent surgical procedure for pregnant women. According to recent national surveys, Telangana exhibits the highest caesarean section rates, reaching 60.7%. The potential complications of CS, notably SSIs, can significantly impact the health of both mothers and babies. SSIs contribute to increased morbidity, extended hospital stays, and heightened healthcare costs.

The study's primary focus was to assess the incidence of post-CS SSIs, adhering to CDC criteria, after the adoption of single-dose antibiotic prophylaxis recommended by the World Health Organization (WHO). The WHO recommends administering a single dose of first-generation cephalosporins or penicillin 30 to 60 minutes before skin incision to prevent SSIs.

In contrast to prevailing practices in India, characterised by the routine use of multiple antibiotic doses over several days, the study adopted a streamlined approach. A single prophylactic dose of injection cefazolin (1 gram) was administered, with injection ampicillin (1 gram) or injection cefotaxime (1 gram) as alternatives when cefazolin was unavailable. Post-operative antibiotics were prescribed only if clinical infection symptoms manifested.

The results were ground breaking, with a remarkably low SSI rate of 4.6% observed among caesarean deliveries subjected to single-dose antibiotic prophylaxis. The findings highlight the importance of adopting evidence-based practices in the administration of antibiotics to prevent SSIs, in light of the emerging global concern about antibiotic resistance.

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Dr. Kalpana B, the head of the Obstetric department, emphasised the need for a shift in current practices, stating, "In view of the recent awareness about rapid development of microbial resistance, the use of indiscriminate multiple doses of antibiotics at the time of caesarean section should be condemned. The adoption of single-dose antibiotic prophylaxis, as recommended by national and international organisations, should be made mandatory."

This ground breaking research not only offers valuable insights for the medical community in India but also contributes to the global conversation surrounding best practices in maternal healthcare.

Dr. Shailendra .D
Vice Principal – Research