# Efektifitas nifedipine slow release oral dibandingkan terbutaline sulfat intravena sebagai obat tokolitik pada kehamilan prematur = Effectiveness of slow release nifedipine oral compare terbutaline sulfat injection as a tocolytic agent for preterm labour

Esa Mannassa Resti, author



---

Abstrak

[ABSTRAK<br>
Latar belakang: Persalinan prematur sekarang ini menjadi tantangan dibidang obstetri. Ini terlihat dari tingginya angka prematur di dunia. Dua hal yang harus diperhatikan dalam kehamilan prematur yaitu kontraksi dan pemberian kortikosteroid untuk pematangan paru, maka dibutuhkan suatu penanganan dengan menggunakan obat tokolitik. Saat ini telah banyak digunakan terbutalin sulfat yang merupakan golongan agonis beta dan juga nifedipine yang merupakan golongan penyekat kanal kalsium. Namun penggunaan agonis beta menyebabkan efek yang kurang baik pada ibu seperti takikardi, dispnoe dan ansietas sehingga penggunaannya sekarang mulai terbatas. Tujuan: Tesis ini bertujuan mengetahui perbandingan efektifitas nifedipine oral dibandingkan dengan terbutalin sulfat sebagai tokolitik dalam kehamilan prematur. Metode: Penelitian ini merupakan uji klinis randomisasi tanpa penyamaran pada ibu hamil prematur di kurang dari 34 minggu di RSUPN Cipto mangunkusumo. Hasil: dari 60 subyek yang diikutsertakan dengan consecutive sampling, didapatkan 56 subyek (93,3%) hilang kontraksi dengan rincian 27 subyek (90,0%) pada kelompok nifedipin dan 29 subyek (96,7%) pada kelompok terbutalin (p=0,61). Kelompok yang diberikan nifedipin hilang kontraksi dengan median waktu 1,25 (0,67-2,00) jam sementara kelompok yang diberikan terbutalin hilang kontraksi lebih cepat dengan median waktu 0,50 (0,50-1,50) jam (p<0,001). Tidak ada perbedaan efek samping yang ditemukan pada kedua kelompok. Simpulan: Nifedipin dan terbutalin memiliki efektifitas yang sama pada kehamilan prematur.
<hr>
ABSTRACT<br>
Background: Preterm labour is considered as one of problems frequently encountered in obstetric and ginecologic department. To date, the incidence of prematurity is still high worldwide. Two things should be noted: uterine contraction and corticosteroid for lung maturity of the baby. Thus, a tocolytic agent may be useful in these circumstances. To date, terbutaline sulfate is widely used as it is known as beta agonist. Beside, nifedine, a calcium channel blocker, is also widely accepted. The use of beta agonist might contribute several adverse events related to the mother, including tachycardia, dispnea, and anxiety. Some physicians have begun to restrict its use. Objective: This study aimed to compare the efficacy of slow release nifedipine and terbutaline sulfate injection as a tocolytic agent for preterm labour.

Methods: This is a randomized clinical trial unblinding. Subjects were pregnant women with prematurity (below 34 weeks of gestational age) at Cipto Mangunkusumo hospital. Results: From a total of 60 subjects, 56 subjects (93.3%) had no contraction after given tocolytic (27 subjects (90.0%) in nifedipine group and 29 subjects (96.7%) in terbutaline sulfate group; (p= 0.61). Subjects in nifedipine group lost their contraction after the drug was given with median time of 1.25 (0.672.00)

hours while subjects in terbutaline sulfate group lost their contraction with median time of 0.50 (0.50-1.50) hours (p<0.001). There was no significantly different proportion of adverse event found in both groups. Conclusions: Nifedipine and terbutaline sulfate have relatively same efficacy to vanish uterine contraction for prematurity management. ;Background: Preterm labour is considered as one of problems frequently
encountered in obstetric and ginecologic department. To date, the incidence of prematurity is still high worldwide. Two things should be noted: uterine contraction and corticosteroid for lung maturity of the baby. Thus, a tocolytic agent may be useful in these circumstances. To date, terbutaline sulfate is widely used as it is known as beta agonist. Beside, nifedine, a calcium channel blocker, is also widely accepted. The use of beta agonist might contribute several adverse events related to the mother, including tachycardia, dispnea, and anxiety. Some physicians have begun to restrict its use. Objective: This study aimed to compare the efficacy of slow release nifedipine and terbutaline sulfate injection as a tocolytic agent for preterm labour.
Methods: This is a randomized clinical trial unblinding. Subjects were pregnant women with prematurity (below 34 weeks of gestational age) at Cipto Mangunkusumo hospital. Results: From a total of 60 subjects, 56 subjects (93.3%) had no contraction after given tocolytic (27 subjects (90.0%) in nifedipine group and 29 subjects (96.7%) in terbutaline sulfate group; (p= 0.61). Subjects in nifedipine group lost their contraction after the drug was given with median time of 1.25 (0.672.00)

hours while subjects in terbutaline sulfate group lost their contraction with median time of 0.50 (0.50-1.50) hours (p<0.001). There was no significantly different proportion of adverse event found in both groups. Conclusions: Nifedipine and terbutaline sulfate have relatively same efficacy to vanish uterine contraction for prematurity management. ;Background: Preterm labour is considered as one of problems frequently
encountered in obstetric and ginecologic department. To date, the incidence of prematurity is still high worldwide. Two things should be noted: uterine contraction and corticosteroid for lung maturity of the baby. Thus, a tocolytic agent may be useful in these circumstances. To date, terbutaline sulfate is widely used as it is known as beta agonist. Beside, nifedine, a calcium channel blocker, is also widely accepted. The use of beta agonist might contribute several adverse events related to the mother, including tachycardia, dispnea, and anxiety. Some physicians have begun to restrict its use. Objective: This study aimed to compare the efficacy of slow release nifedipine and terbutaline sulfate injection as a tocolytic agent for preterm labour.

Methods: This is a randomized clinical trial unblinding. Subjects were pregnant women with prematurity (below 34 weeks of gestational age) at Cipto Mangunkusumo hospital. Results: From a total of 60 subjects, 56 subjects (93.3%) had no contraction after given tocolytic (27 subjects (90.0%) in nifedipine group and 29 subjects (96.7%) in terbutaline sulfate group; (p= 0.61). Subjects in nifedipine group lost their contraction after the drug was given with median time of 1.25 (0.672.00)

hours while subjects in terbutaline sulfate group lost their contraction with median time of 0.50 (0.50-1.50) hours (p<0.001). There was no significantly different proportion of adverse event found in both groups. Conclusions: Nifedipine and terbutaline sulfate have relatively same efficacy to vanish uterine contraction for prematurity management. , Background: Preterm labour is considered as one of problems frequently
encountered in obstetric and ginecologic department. To date, the incidence of prematurity is still high worldwide. Two things should be noted: uterine contraction and corticosteroid for lung maturity of the baby. Thus, a tocolytic agent may be useful in these circumstances. To date, terbutaline sulfate is widely used as it is known as beta agonist. Beside, nifedine, a calcium channel blocker, is also widely accepted. The use of beta agonist might contribute several adverse events related to the mother, including tachycardia, dispnea, and anxiety. Some physicians have begun to restrict its use. Objective: This study aimed to compare the efficacy of slow release nifedipine and terbutaline sulfate injection as a tocolytic agent for preterm labour. Methods: This is a randomized clinical trial unblinding. Subjects were pregnant women with prematurity (below 34 weeks of gestational age) at Cipto Mangunkusumo hospital. Results: From a total of 60 subjects, 56 subjects (93.3%) had no contraction after given tocolytic (27 subjects (90.0%) in nifedipine group and 29 subjects (96.7%) in terbutaline sulfate group; (p= 0.61). Subjects in nifedipine group lost their contraction after the drug was given with median time of 1.25 (0.672.00)

hours while subjects in terbutaline sulfate group lost their contraction with median time of 0.50 (0.50-1.50) hours (p<0.001). There was no significantly different proportion of adverse event found in both groups. Conclusions: Nifedipine and terbutaline sulfate have relatively same efficacy to vanish uterine contraction for prematurity management. ]