Objective: To assess the effects of ambulation during the first stage of labor on the duration of labor and other maternal and infant outcomes.

Patients and methods: A prospective randomized trial conducted from 1st November 2008 to 31st March 2009 at the department of obstetrics and gynecology, CHU Farhat Hached, Sousse, Tunisia. Two hundred mothers with uncomplicated term pregnancies were randomly assigned to one of two groups: first group (100 parturients) authorized to ambulate until 6 cm of cervical dilation and a second group (100 parturients) confined to bed in dorsal or lateral recumbence.

Results: Upright position reduces significantly (for about 34%) the duration of the first stage of labor ($P < 0.0001$), the pain intensity, the oxytocin consumption ($P = 0.001$), the rate of delivery by cesarean section and of instrumental deliveries. Upright position leads also to an improvement of the maternal outcome (7% side effects versus 13%) and the fetal outcome (net improvement of the Apgar's score at first and fifth minute, and reduction of a factor 5 of the rate of transfer to the neonatology clinical care unit.

Conclusion: Our study allowed to confirm the benefits of ambulation on labor progress as well as on the maternal comfort and the materno-fetal outcome.