

Pyridoxine Effectiveness and Safety for Postpartum Lactation Inhibition: A Systematic Review

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Abstract : Background: It has been suggested that pyridoxine has an anti-lactogenic effect. Studies of the efficacy of pyridoxine in suppressing lactation have reported conflicting results. The aim of this review is to evaluate the effectiveness and safety of high-dose pyridoxine in postpartum lactation inhibition. Methods: This systematic review included published trials that compared the efficacy and/or safety of pyridoxine to placebo or to other pharmacological agents for the inhibition of postpartum lactation. We searched PubMed, Embase, ScienceDirect, CINAHL, AMED, the Cochrane library, and the clinical trials registry to identify relevant literature. No limit was imposed on the year of publication of the studies, and the review included studies published until 15 January 2016. Two reviewers independently extracted data and assessed the risk of bias. Results: Seven studies were included, with a total of 1155 women, of which 471 women received pyridoxine. Three studies were randomized controlled trials, while the remaining four studies were non-randomized controlled trials. All of the included studies were relatively small (n = 18 - 482). The studies compared pyridoxine with placebo, bromocriptine, and/or stilboestrol. Pyridoxine was given orally, with a total daily dose of 450 - 600 mg for 5 to 7 days. Two trials (n = 349 participants) indicated that pyridoxine was effective in inhibiting lactation in approximately 95% of the enrolled patients. All other studies failed to demonstrate pyridoxine efficacy through either clinical assessment or prolactin level measurements. Pyridoxine safety was assessed by two trials in which no serious untoward side-effects were reported. Overall, the risk of bias for most of the studies was low to moderate. Conclusion: Current evidence supporting the effectiveness of high dose pyridoxine in the inhibition of postpartum lactation is inconsistent and insufficient. Larger randomized trials are needed to confirm the efficacy of pyridoxine in postpartum lactation inhibition. Acknowledgment: This review received a grant from the Medical Research Center of Hamad Medical Corporation in Qatar (grant number: 15100/15).

Keywords : pyridoxine, safety, effectiveness, lactation inhibition

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