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## THE IMPACT OF VITAMIN D DEFICIENCY IN RECURRENT PREGNANCY LOSS

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### Abstract

**Background and Objectives:** Recurrent pregnancy loss (RPL) is defined as loss of two or more consecutive pregnancies before 20 weeks of gestation. About 1% of couples trying to have children are affected by recurrent miscarriage. There is some evidence suggesting that vitamin D modulates human reproductive processes. Vitamin D deficiency is a common problem in childbearing age women and pregnant women.

The aim of the present study was to investigate the impact of vitamin D deficiency on recurrent pregnancy loss.

**Methods:** this is a case-control study of 300 gravid and non-gravid women visited Duhok Maternity Hospital between. The patients were selected through the purposive method and included 100 women with recurrent pregnancy loss (RPL), 100 non-recurrent pregnancy loss women (nRPL), and 100 women at childbearing age taken randomly being pregnant or not. The level of 25-hydroxy vitamin D was measured by performance Liquid Chromatography (HPLC) including initiative DEQAS. The serum vitamin D (25 (OH) D) between 30 and 100 ng/ml was considered as normal and levels ranging 30-20 ng/ml as vitamin D insufficiency while levels and less than 10 ng/ml regarded as vitamin D deficiency.

**Results:** The mean age of women in the three groups was  $29.11 \pm 6.20$ . The median Vitamin D level of all three groups were lower than normal range, in which the women in RPL group had lowest level,  $11.65 \pm 9.54$  in RPL,  $14.70 \pm 7.63$  in nRPL, and  $16.31 \pm 11.23$  in controls. Vitamin D level of majority of all three groups were in the range 11-20 ng/ml, 56% of the women in RPL, 62% in nRPL, and 52% in controls. The findings showed that vitamin D levels is different significantly in between RPL and control groups ( $p=0.000$ ), between RPL and nRPL groups ( $p=0.004$ ), but not between nRPL and control groups ( $p=0.152$ ).

**Conclusion:** In general, it seems that vitamin D intake is not sufficient in our country. The present study showed an association between vitamin D deficiency and recurrent pregnancy loss in our sample size. But, it cannot be confirmed that vitamin D deficiency is a cause of recurrent pregnancy loss in the first or second trimesters.

**Key words:** non recurrent pregnancy loss n (RPL), recurrent pregnancy Loss (RPL), Vitamin D insufficiency

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