

*Summary*

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Menorrhagia means "excessively heavy menstruation" and has been defined as a measured menstrual blood loss (MBL) of more than 80 ml/cycle. Hysterectomy is the most effective treatment for both refractory menorrhagia and dysmenorrhea but it should be considered as a last resort when other treatments of menorrhagia have failed. The use of hysterectomy for treatment of menorrhagia should be limited due to increase incidence of post operative sequel and complications, also due to the fact that in about half of cases of menorrhagia the uterus removed at hysterectomy is histologically normal.

Now the focus is towards the search for non invasive options alternative to hysterectomy in management of menorrhagia.

The aim of this work is to evaluate the effect of Levonorgestrel releasing intrauterine device in management of refractory menorrhagia.

This study enrolled Thirty women complaining of refractory menorrhagia recruited from the Outpatient Gynecology Clinic of Benha University Hospital. All women had satisfied the selection criteria. Only twenty eight women with dysfunctional refractory menorrhagia gave a written consent for LNG-IUS use.

Twenty seven of thirty women underwent LNG-IUS insertion without cervical diltation while three cases needed analgesics for cervical diltation during insertion of LNG-IUS. Six cases underwent hysterectomy after one year of LNG-IUS use due to persistence of menorrhagia.

Regarding clinical and demographic data, the mean age of patients was  $40.3 \pm 2.13$  years, the mean gravidity was  $5.1 \pm 1.21$ , while the mean parity was  $4.3 \pm 1.12$ .

In this study, MBL declined significantly from a baseline mean of  $185.3 \pm 15.5$  to  $33.45 \pm 7.5$  after 12 months ( $p < 0.01$ ). The average reduction in MBL was 83.1%. The decline in MBL was accompanied by increase in hemoglobin level from a baseline mean of  $9.02 \pm 0.71$  g/dl to  $11.9 \pm 0.311$  g/dl after 12 months of LNG-IUS use

In this study, there was statistically significant negative correlation between PBLAC score and hemoglobin level ( $P < 0.05$ )

The levonorgestrel releasing intrauterine system appears to be a promising option in treatment of refractory menorrhagia but series of large number of patients and longer follow up periods are recommended.