This study was conducted to evaluate the response of pelvic inflammatory disease to pulsed electromagnetic therapy. Sixty patients complaining from mild to moderate degrees of pelvic inflammatory disease were participated in this study. Patients were assigned randomly into two groups equal in numbers. Group (A) study group received pulsed electromagnetic therapy with frequency of 20 HZ, intensity of 40 gauss and duration of 20 minutes per session, 3 sessions per week for 6 weeks in addition to routine medical treatment (fluoroquinolones 500 milligram plus metronidazole 500 milligram each of them orally twice per day at the morning and at the evening) for 2 weeks. Group (B) control group were only received the same medical treatment as group A. Evaluation of all patients in both groups was done through measuring plasma cortisol concentration, TNF-alpha and intensity of pain was measured by descriptive analog scale before starting treatment, after 2 weeks from starting the study and after the end of treatment (6 weeks). The obtained results showed that there was a statistical significant decrease in plasma cortisol concentration values, serum level of TNF-alpha values and intensity of pain after 2 weeks and 6 weeks of treatment for both groups (A&B), with statistical significant decrease of serum level of TNF-alpha after 6 weeks of treatment between both groups favoring group (A). Accordingly, it could be concluded that pulsed electromagnetic therapy is an effective therapeutic modality for treating cases suffering from pelvic inflammatory disease.
This study was conducted to determine the efficacy of electrical acupuncture in reducing labor pain. 50 normal full term primigravida women were selected from emergency unit of Obstetrics Department at Kafr El-Sheikh Hospital during first stage of labor and their age ranged from 20-30 years old. They were divided randomly into two equal groups in number (A&B). Group (A): received placebo electrical acupuncture for 30 minutes while group (B): received active electrical acupuncture for 30 minutes; the first 15 minutes with low frequency current and the other 15 minutes with high frequency current. Both groups received 2 sessions, the first session when cervical dilatation become $\geq 3cm \leq 5cm$ and the second session when cervical dilatation become 7-8cm, in addition to the same general and intranatal instructions. All participants were assessed by using Present Pain Intensity (PPI) scale for labor pain, serotonin level in blood, progress of labor (duration of active phase of 1st stage of labor, amount of analgesia, mode of delivery) and APGAR score for the condition of newborn babies. The results were done on 43 cases only because 5 cases in group (A) and 2 cases in group (B) were excluded because they delivered by cesarean not normal vaginal delivery. Also, the result revealed statistically highly significant increase in the level of serotonin as well as APGAR score in group (B) more than group (A). Also, there was a statistically significant reduction in level of pain, shorten the duration of active phase of 1st stage of labor, and reduced the amount of analgesia in group (B) more than group (A). Accordingly, it could be concluded that the electrical acupuncture using surface electrodes is an effective method in reducing labor pain and safe for the mother as well as her new born.

**Key words**
1. Electrical acupuncture.
2. labor pain.
3. Serotonin.
4. present pain intensity.
5. APGAR.

**Arabic Title Page**: تأثير التنبيه الكهربائي لنقطة الوخز بالإبر الصينية في تخفيف آلام الولادة الطبيعية.

**Library register number**: 3221-3222.
Response of Milk Production to Low Level Laser Therapy in Scanty Lactating Ladies.

The purpose of the study was to investigate the response of milk production to low level laser therapy in scanty lactating ladies. 40 lactating mothers were divided randomly into two groups equal in numbers, in Group (A) (Study group): the lactating mothers received active low power He-Ne laser beam on both sides of the breasts 10 minutes for each side and in Group (B) (Control group): the lactating mothers received placebo low power He-Ne by the same manner as in group (A). Both groups (A & B) received the same medical treatment (10 mg domperidone three times a day after meals) and advices about lactation as well as mother’s nutrition and fluid intake all through the treatment period (3 weeks). Evaluation of all mothers in both groups (A&B) were done pre and post treatment as well as at follow up (3 months after end of treatment) through assessing the serum prolactin level, milk content (lactose, fat & protein), weight of the baby and the degree of improvement in the flow of milk (by VAS). The results of the study revealed that; in (group A) the serum prolactin level, contents of milk, weight of the baby and the degree of improvement of the flow of milk assessed by (VAS) showed a statistically highly significant increase (P<0.001) at all readings. While in (group B) all the variables showed a statistically non significant difference (P>0.05) between pre and post treatment and a statistically highly significant difference (P<0.001) between pre treatment and at follow up. While between post treatment and at follow up prolactin, milk fat and protein showed a statistically non significant difference (P>0.05), milk lactose showed a statistically significant difference (P<0.01) and finally baby body weight and the degree of improvement of the flow of milk assessed by (VAS) showed a statistically highly significant difference (P<0.001). When comparing both groups there were a statistically highly significant difference between both groups at post treatment values as well as at follow up values (P<0.0001) in the favor of group (A) than group (B) in all variables except the weight of the baby there was a statistically significant difference between both groups at post treatment (P<0.04) for the favor of group (A) than group (B), while there was no statistically significant difference between both groups at follow up (P<0.53). So, it can be concluded that LLLT can be used effectively to improve both the milk quantity and quality which lead to normal weight gain of the newly born.

Key words
1. low level laser therapy.
2. Scanty.
3. Domperidone.
4. prolactin.

Arabic Title Page
إستجابة السيدات اللاتي تعانون من نقص في إفراز اللبن أثناء الرضاعة للعلاج بالليزر المنخفض الشدة.
ELECTRONIC GUIDE TO THESE APPROVED BY PHYSICAL THERAPY DEPARTMENT FOR OBSTETRICS AND GYNAECOLOGY AND ITS SURGERY
PREPARED BY ADEL SALAMA
NERVEEN ABD EL SALAM ABD EL KADER AHMED

Library register number : 3225-3226.
This study was conducted to estimate the influence of muscle energy techniques (METs) on low back pain in pregnant women. Sixty primigravide women from 20 to 25 weeks’ gestation having mechanical low back pain participated in this study. They were selected from the outpatient clinic of 6 October University Hospital. They were randomly assigned into two groups (A&B) of equal numbers. Group (A) Control group: participated in an exercise program (three sessions per week) and advised for dealing with their back during daily living activities for 4 weeks. Group (B) Study group: participated in a program of treatment which includes a course of muscle energy techniques and the same exercise program as in group (A) (three sessions per week for 4 weeks) in addition to the same advices for the back. Evaluation: of both groups (A&B), were done before starting and after the end of the treatment (4 weeks) through measuring pain intensity using present pain intensity (PPI) scale, lumbar and thoracic curves using flexible curve ruler and paraspinal muscles activity using surface electromyography (EMG). In addition to the previous measurements, the pain intensity was measured one month after finishing the study to determine the long lasting treatment effect. Results: In group (A): There was a statistically highly significant decrease in low back pain intensity and paraspinal muscle activity while there was a statistically highly significant increase in kyphotic and lordotic angles. While in group (B): There was a statistically highly significant decrease in low back pain intensity, while there was a statistically highly significant increase in kyphotic and lordotic angles as well as paraspinal muscles activity. When comparing the two groups (A & B) after the end of treatment there was a statistically highly significant differences in low back pain intensity, kyphotic and lordotic angles as well as paraspinal muscles activity which shows that the improvement in group (B) was much better than the group (A) Conclusion: The results of this study concluded that muscle energy technique is effective in reducing low back pain during pregnancy as well as reducing postural changes and improving muscle activity.

Key words
1. Pregnancy.
2. Low back pain.
3. Electromyography.
4. Flexible curve.
5. Muscle energy technique.
ELECTRONIC GUIDE TO THESES APPROVED BY PHYSICAL THERAPY DEPARTMENT FOR OBSTETRICS AND GYNAECOLOGY AND ITS SURGERY
PREPARED BY ADEL SALAMA NERVEEN ABD EL SALAM ABD EL KADER AHMED

| Library register number | 3279-3280. |
This study was conducted to determine the impact of pregnancy on postural balance and joint stability in normal primigravidae women at their three different trimesters of pregnancy. Sixty-eight normal primigravidae women at their first trimester (12 weeks’ gestation) were selected from Out Patient Clinic of Obstetric Department, at Kasr El-Ainie University Hospital as a Study Group and twenty nulligravidae women as a Control Group. Their age ranged from 20 to 30 yrs, their body mass index was \( \leq 30 \text{ kg/m}^2 \). Serum progesterone level, dynamic balance test using Biodex Balance System and knee joint laxity test using KT1000 Knee Ligament Arthrometer were performed for each woman in Control Group one time and for each pregnant woman in Study Group three times (at 12, 24 & 36 weeks ’gestation). Serum progesterone level, stability indices (SIs) and knee joint laxity showed a statistically highly significant increase \( (p < 0.001) \) between Control and Study Groups. But within Study Group, serum progesterone level showed a statistically significant difference, while, SIs and knee joint laxity showed a statistically non significant difference between the three trimesters of pregnancy. Accordingly, it could be concluded that both postural balance and knee joint stability decrease during pregnancy. So, balance exercises and strengthening exercises for muscles around knee joint are recommended during pregnancy to improve postural balance and knee stability as well as, to reduce incidence of falling and joint injuries.

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<td>1. Postural Balance.</td>
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<td>2. Pregnancy.</td>
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Arabic Title Page: نموذج الإتزان الوعائي لدى السيدات الحوامل لأول مرة.
Library register number: 3317-3318.