The Effect of Magnetic Stimulation of Pelvic Floor on Treating Postpartum Fecal Incontinence

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ABSTRACT

Objective: *this study conducted to determine the effectiveness of pelvic floor magnetic stimulation in treating postnatal fecal incontinence.* ***Patients and methods:*** *Fifty volunteers' premenopausal women women, were selected the outpatient clinic of Coloproctology unit, Faculty of Medicine, Cairo University Hospital after confirm their diagnosis by coloproctologist. They were divided randomly into two groups (A and B) equal in number; each group contained 25 premenopausal women suffering from postnatal fecal incontinence. Group (A) had been treated with pelvic floor muscles exercise, while, group (B) had been treated with pelvic floor magnetic stimulation and pelvic floor exercises. The outcomes measures included: visual analogue scale (VAS) and anal pressure, they were done before the first session, after the 12th session and at the end of the 24th session of the treatment for both groups. While, the Anorectalmanometry study (the resting anal sphincter pressure and squeeze anal pressure) were done before the first session and at the end of the 24th session of the treatment.* ***Results:*** *before straining the treatment program no significant difference in either test was recorded between the two groups however, data collected at the end of treatment indicated highly significant improvement in the mean values of all measured parameters: bowel control scores, anal pressure canal and Anorectal manometry studies (anal resting pressures and squeeze pressures) in both groups. While, in comparing the post treatment results a high significant improvement was recorded in group B after two consecutive months of the treatment.* ***Conclusion:*** *According to the results of the present study it could be that pelvic floor magnetic stimulation and exercise could be effective in treating postnatal fecal incontinence however, pelvic floor magnetic stimulation are more of superior than exercises on treating such case.*

Key words: *Postnatal, fecal incontinence, magnetic stimulation, pelvic floor muscle exercises.*

INTRODUCTION

Fecal incontinence is defined as either the involuntary passage or the inability to control the discharge of fecal matter through the anus. Clinically there are three subtypes (a) passive incontinence—the involuntary discharge of stool or gas without awareness; (b) urge incontinence—the discharge of fecal matter in spite of active attempts to retain bowel contents, and (c) fecal seepage—the leakage of stool following otherwise normal evacuation. The severity of incontinence can range from the unintentional elimination of flatus to the seepage of liquid fecal matter or sometimes the complete evacuation of bowel contents. Not surprisingly, these events cause considerable embarrassment, which in turn can lead to a loss of self-esteem, social isolation, and a diminished quality of life[6,19,26].

The prevalence of fecal incontinence after childbirth is more common than was previously believed. The reported frequency of incontinence of stool in primiparous women ranges from 2% to 6%, and incontinence of either stool or flatus from 13% to 25%. After severe perineal laceration, the rate of fecal incontinence climbs to 17% to 62%. However, the risk factors for anal incontinence in women giving birth have not received adequate attention[3,22].

In adult women, obstetric trauma is a major predisposing factor[20]. This mechanical or neurologic injury may involve the external anal sphincter, the internal anal sphincter, the pudendal nerves or all three structures. In prospective studies, nearly 35%of primiparous women (normal ante partum) showed evidence of sphincter disruption following vaginal delivery[20,31,32]. Other important risk factors include forceps delivery, prolonged second stage of labor, large birth weight, and occipito-posterior presentation[7,10,16]. Perineal tears, even when carefully repaired, can be

associated with incontinence, and patients may present immediately or several years follow the delivery[20].

Conservative treatment is any therapy that does not involve medical or surgical intervention. It includes principally, lifestyle interventions, physical therapies, bladder retraining, graded muscle training alone, or in combination with other physical adjuncts such as biofeedback, electrical stimulation and vaginal cones, is used to rehabilitate dysfunction and strengthen the pelvic floor muscles[4,14].

In Obstetric-related fecal incontinence, there is reason to believe that improving pelvic and sphincter strength before potential injury may be beneficial. In clinical practice pelvic floor muscle/anal sphincter, exercises are often suggested for patients with fecal incontinence[14]. These might be self-directed, taught via verbal and/or written instructions from a physiotherapist, or taught during a vaginal or anal digital examination. The rationale is to enhance sphincter strength, endurance and speed of response by a programme of systematic exercises, usually over a period of several months[4]. This could in theory enable the patient to better resist the urge to defaecate by use of the external anal sphincter and the puborectalis muscle of the pelvic floor. Better muscle function could also augment resting tone in the anus, thus improving episodes of passive faecal soiling (although the smooth muscle internal anal sphincter, which is mostly responsible for resting anal tone, is not amenable to exercising)[15].

Magnetic Innervation was introduced in 1998 for the treatment of urinary incontinence[9]. Recently, magnetic therapy has been investigated as an alternative to electrical stimulation its clinical application for treating pelvic floor dysfunction has been limited by discomfort. Based on a highly focused magnetic field, this deep inner therapy innervates the muscles of the perineum by activating the nerve structures[2]. Magnetic stimulation work through direct stimulation of motor nerves supplying the pelvic floor and external anal causing contraction of these muscles and increased the number of muscle fibers with rapid contraction, which are responsible for continence during stressful situations[1].

Purpose of the study

The primary objective was to assess the effectiveness of the magnetic stimulation on enhancing the functions and neuromuscular re-education of the pelvic floor muscles in the treatment of postnatal fecal incontinence.

SUBJECTS MATERIALS AND METHODS

Subjects

This study was carried out on fifty volunteer's premenopausal women still presenting symptoms of fecal incontinence after obstetric injury at 12 weeks after their last delivery, and willing to participate in the study, were selected from the outpatient clinic of Coloproctology unit, Faculty of Medicine, Cairo University Hospital. Anal physiologic investigations consisted of anal manometry and endoanal ultrasound scans were done by staff of the unit for all of them to establish a definite diagnose of fecal incontinence (FI) and exclude any other types of incontinence None of the women have urinary or mixed urinary / fecal incontinence nor genitourinary surgery during the previous 6 months. Women with diabetes mellitus inflammatory bowel disease, irritable bowel disease, who had had previous anorectal surgery, a neurological or psychiatric disease, or a major medical condition, or there is occurrence of pregnancy or those who were taking any medication that could interfere with their evaluation or treatment were excluded from the study.

Before participate in this study. All patients signed informed consent after reading it and hearing a verbal explanation of the relevant doubts, their ages ranged from 32 to 39 years, their parity ranged from 2 to 4 times and their body mass index not exceed 30 Kg/ m^2. They were randomly divided into two group equal in number (A, B):

- Group A (pelvic floor muscle training): Consisted of 25 patients who trained on pelvic floor muscles exercises for eighth consecutive weeks.
- Group B (Magnetic stimulation of pelvic floor): Consisted of 25 patients who trained

magnetic stimulation of the pelvic floor in additional to pelvic floor muscles exercises for eighth consecutive weeks.

Table (1): General characteristics for all women participating in this study.

	Groups	Range		Mean	SD	t-value	P- value	Significance
		Min.	Max.					
Age (Yrs)	Group (A)	32	39	36.19	1.05	0.143	0.987	NS
	Group (B)	34	39	37.02	1.09			
Weight (Kg)	Group (A)	69	86	76.15	3.96	0.152	0.957	NS
	Group (B)	66	88	75.95	3.51			
Height (Cm)	Group (A)	158	170	164.85	3.44	0.142	0.896	NS
	Group (B)	158	171	165.32	3.74			
BMI (Kg/m^2)	Group (A)	24.20	29.83	26.17	1.04	0.115	0.985	NS
	Group (B)	22.17	28.62	24.15	1.14			
Parity (number)	Group (A)	2.00	4.00	2.00	0.00	0.177	0.995	NS
	Group (B)	2.00	4.00	2.00	0.00			

Group A: pelvic floor muscles exercise
Group B: combined magnetic stimulation &pelvic floor muscles exercise
SD: Standard Deviation t-value: Unpaired t-value Min: Minimum Max: Maximum
BMI: Body Mass Index NS: Non Significant

MATERIALS AND METHODS

a- Assessment tools:

- Meticulous history taking and Gynaecological examination: A detailed medical, obstetrical and gynecological history were taken from each women. Endoanal ultrasound scanning was performed with each patient with a scanner (Bruel and Kjaer, Naerum, Denmark), which has a 10-mHz rotating endoprobe. All scans were reported by a consultant radiologist, and injury was defined in terms the number of quadrants of the internal and external anal sphincter circumference that were affected and whether the injury was full or partial thickness in nature.
- Weight height scale was used for measuring the patient's body weight and height to calculate the body mass index.
- Preniometer (Peritron 9300): The Peritron 9300 designed by Cardio Design Pty Itd Australia. It is supplied with Anal sensor. Technical specification: Numerical readout 0-300 cm H_2O, Resolution 1cm H_2O, Accuracy ±1cm H_2O for 95% of readings, Display liquid crystal 3.5 digits, 12.7mm high with indicator for battery low charge, Output option 0-3.5 DC into 3.5 K ohms min. proportional to sensor pressure and Anal sensor 15 mm diameter, 30 mm. Normal anal resting pressures are around 50cm water. Cough usually adds 40 and squeeze 100. These correlate well with traditional measuring techniques using multi-lumen catheters. It was used before starting the treatment, after the 12^{th} and 24^{th} sessions of treatment for objective assessment of the strength and endurance of pelvic floor muscles contractions as well as teaching muscle re-education and training of pelvic floor muscles.
- Anorectalmanometry was performed for measurement of rectal compliance (reservoir function), anal sphincter pressures together with an assessment of rectal sensation, rectoanal reflexes, and rectal compliance. By using a Synectics PC Polygraf Lower Gastrointestinal system (Synectics, Stockholm, Sweden), a water-perfused system with an 8-channel recording capacity. The results were determined by the averaging of manometric results across three-pressure profile, the resting anal sphincter pressure predominantly represents the internal anal sphincter function and the voluntary squeeze anal pressure predominantly measures the external anal sphincter function[24]. It was done before starting the first session and after the twenty four sessions of the treatment, for all patients in both groups (A&B).
- The bowel control: is a graphic rating scale, which was used to measure the severity of fecal incontinence as reported

by the patient[18]. The patient was asked to place a cross on VAS with numerical values placed equidistantly along a 10cm line 0 = no control, 10 = complete control. The descriptors and numbers help the subject to place her estimate on the line It was done for all subjects in both groups (A and B), before starting the first session, after the 12th session and at the end of the 24th session of the treatment.

b- Treatment tools

Magnetic stimulator: Magstim200 with a single high power coil 70mm circular coil delivered mono-phasic stimulation with Maximum Power: 0-100%, Maximum, Frequency at Maximum Power 0-100hz, Upper Frequency 0- 100hz, Maximum Frequency Burst, 0- 100hz and Minimum Pulse Interval 0-10s (Magstim Co., Ltd., Carmarthen, United Kingdom).

c- Treatment procedure

All patients were taught about the anatomy of the pelvic floors, physiology and continence mechanism. Before starting the treatment sessions patients were asked to evacuate their bladders and this followed by 5 minutes rest. Each woman in both groups (A&B) was taught about the goals of pelvic floor training exercises in cases of fecal incontinence, which, are to improve the strength of the anal sphincter muscles; to improve the coordination between the abdominal, gluteal, and anal sphincter muscles during voluntary squeeze and following rectal perception and to enhance the anorectal sensory perception.

Group (A) Pelvic floor muscles exercises:

Each women was lie in the lithotomy position so, the pelvic floor was assessed through vaginal / anal palpation by therapist aiming to increase awareness of position of the levator ani & pubrectailis muscles; to control muscle contractions correctly without using her abdominal or glutei muscles and to strengthen the levator ani muscles. The patient instructed to contract her pelvic floor muscles without contracting adjacent muscles, such as the abdomen, glutei and hip adductors muscles twenty repletion consisted of contraction and squeezing of the muscle ten seconds followed by relaxation for twenty second then rested for two minutes, according to Romanzi[25] protocol. When, the patient was asked to squeeze and to maintain the squeeze for as long as possible, the anal sphincter muscle contracts. This increase in anal pressure enforced by the verbal commend provided by the therapist[5,11,13]. The recto-anal coordination training is to achieve a maximum voluntary squeeze. In reality, this maneuver mimics the arrival of stool in the rectum and prepares the patient to react appropriately by contracting the right group of muscles[4]. Patients were instructed to selectively squeeze their anal muscles without increasing their intra-abdominal pressure or inappropriately contracting their gluteal or thigh muscles. In addition, these maneuver identifies sensory delay and train the individual to use visual clues to improve sensorimotor coordination[12,13,14]. The exercises program lasted for twenty minutes three times a week for eight consecutive weeks. Home exercises through continuing practicing these contractions as frequent as possible according to her ability.

Group (B) Pelvic floor Magnetic Stimulation.

Women were lying in crock lying position. The magnetic stimulation delivered to the pelvic floor muscles circular probe inserted under the lumbosacral region (Fig1). The selected parameters induced mono-phasic stimulation, frequency 50 Hz, and 100% maximum output intensity, Duration of treatment was thirty minutes per session[8]. Each session repeated three time/weeks for two consecutive months in additional to pelvic floor muscles exercises as in group (A).

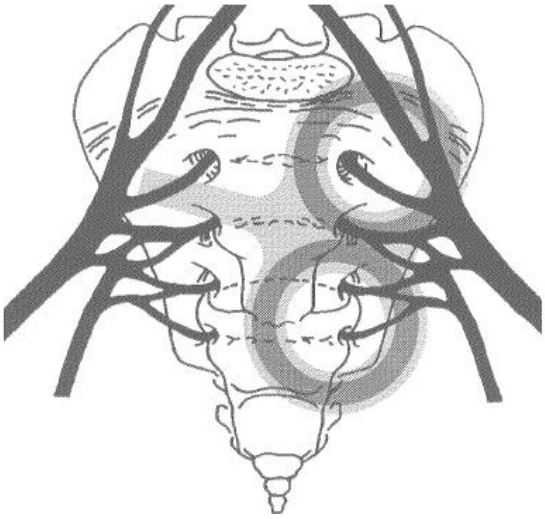

Fig. (1): The 70mm Coil treament head over the of the sacrum showing the nerve roots are likely to be stimulated.

Statistical analysis

In this study, we observed a difference in the pretreatment and post treatment mean results with the Student "t" test: for the significance of difference between studied parameters (for quantitative variables) and Chi-square test: was used for qualitative variables, the statistical significance at a confidence of 95% (α-level of 0.05).

RESULTS

The pretreatment evaluation indicated no significant difference in all measured parameters between both groups (P>0.05) as indicated in table (1).

The severity of fecal incontinence measured by the bowel control scale as reported by the women revealed a highly significant decrease (P<0.01) after the end of 24th session of treatment in each group. While comparing both groups (A and B) the post treatment scores showed that group (B) was highly significantly (P<0.01) decrease than group (A) at the end of 24th session of treatment. (Table 2,3 and 4)

Table (2): Shows the Bowel Control scores the 1st session, after the 12th session and at the end of the 24th session of the treatment in group A.

	Before 1st S		After 12th S		After 24th S	
VAS	No.	%	No.	%	No.	%
Complete Control	0	0%	1	4%	15	60%
Excellent Control	0	0%	8	32%	9	36%
Good Control	2	8%	15	60%	1	4%
Slight Control	9	36%	1	4%	0	0%
No Control	14	56%	0	0%	0	0%
Total	25	100%	25	100%	25	100%

S = session ttt= treatment
No. = number % = percentage

Table (3): Shows the Bowel Control scores before the 1st session, after the 12th session and at the end of the 24th session of the ttt in group B.

	Before 1st S		After 12th S		After 24th S	
VAS	No.	%	No.	%	No.	%
Complete Control	0	0%	8	32%	19	76%
Excellent Control	0	0%	11	44%	6	24%
Good Control	3	12%	6	24%	0	0%
Slight Control	7	28%	0	0%	0	0%
No Control	15	60%	0	0%	0	0%
Total	25	100%	25	100%	25	100%

S = session ttt= treatment
No. = number %= percentage

Table (4): Shows analytical statistics of the Bowel Control scores in both groups (A and B) before and after treatment.

Visual analogue scores	X^2	P. value	significance
Before the first session of the ttt in group A Vs Before the first session of the ttt in group B	0.95	>0.05	NS
After the 12th session of the ttt in group B Vs After the 12th session of the ttt in group A	4.50	<0.05	S
At the end of the 24th session of the ttt in group B Vs At the end of the 24th session of the ttt in group A	8.42	<0.01	HS

X^2 = Chi-square test P. Value = Probability of error
HS = highly significant S= significant NS= Non significant
Vs = Versus ttt = Treatment

The mean values of Anal pressure were presented in table (5) post treatment results highly significant increase (P<0.01) shown after two consecutive months of treatment in both groups however, comparing post treatment results in both groups (A and B) showed significant increase (P<0.05) in group (A) compare to group (B) after the end of the 12th session of treatment and also highly significant increase (P<0.01) in group (A) as compared with group (B) at the end of treatment after two consecutive months.

Table (5): The mean values of Anal pressure pre and post treatment in group (A) and group (B).

		Group (A)	Group (B)	t- value	P- value	Significance
Pre-ttt	Mean	20.86	21.65	0.227	0.822	NS
	SD	8.23	7.21			
Post 12th session	Mean	28.23	32.55	0.176	<0.05	S
	SD	9.32	8.32			
Post 24th session	Mean	40.54	52.56	0.162	<0.01	HS
	SD	7.56	9.56			

Group A: pelvic floor muscles exercise Group B: pelvic floor magnetic stimulation
SD: Standard Deviation t- value: Unpaired t value
P- value: Probability value NS: Non Significant
S: Significant HS: Highly Significant

The manometric findings (the resting or squeezing pressure) post treatment results in group (A) showed highly significant (P<0.01) and the same post treatment results obtained in group (B) in table (6). While, comparing post treatment results for both groups (A and B) showed that the results of both resting and squeezing pressure results in group (B) were highly significant increase (P<0.01) at the end of treatment as compared with group (A). (Table 6 & figure 2)

Table (6): The mean values of the Manometric findings pre & post treatment in both groups (A and B).

			Group (A)	Group (B)	t value	P value	Significance
Restring Pressure mm.Hg	Pre-ttt	Mean	17.87	20.64	0.127	0.899	NS
		SD	8.65	5.23			
	Post-ttt	Mean	35.34	48.87	2.185	<0.01	HS
		SD	11.35	10.36			
Squeeze Pressure mm.Hg	Pre-ttt	Mean	48.32	49.64	0.135	0.569	NS
		SD	3.65	5.83			
	Post-ttt	Mean	70.34	94.87	3.248	<0.01	HS
		SD	10.67	17.45			

Group A: pelvic floor muscles exercise Group B: pelvic floor magnetic stimulation
SD: Standard Deviation t- value: Unpaired t value
P- value: Probability value NS: Non Significant HS: Highly Significant

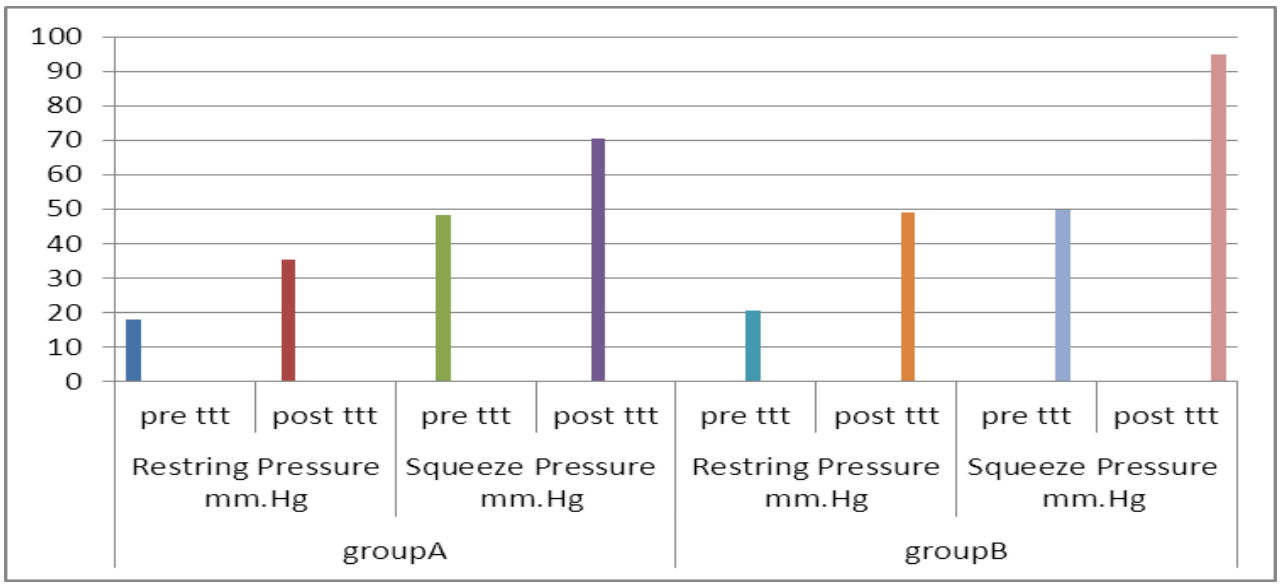

Fig. (2): The mean values of Manometric findings pre & post ttt in both group (A) and (B).

DISCUSSION

Incontinence is a social problem which affects women's quality of life directly or indirectly[23], so that the increase in living standards has created a group of female incontinence patients who now seeking for treatment, this in turn raised the interest of medical researchers to find both preventive and effective treatment procedures for such cases[15].

This study shows that pelvic floor magnetic stimulation and pelvic floor muscles exercises were associated with a significant improvement in the symptoms of postpartum fecal incontinence. In respect of the results of the present study, after treatment there was highly significant improvement in the mean values of all measured parameters: bowel control scores, anal pressure canal and Anorectal manometry studies (anal resting pressures and squeeze pressures) in both groups (A&B). While, in comparing the post treatment results a high significant improvement was recorded in women belonging to the pelvic floor magnetic stimulation group after two consecutive months of the treatment. However, no significant difference was presented when comparing the pretreatment results of the two groups.

Magnetic stimulation induces an electric field sufficient to produce neural membrane polarization. From urologic studies, this membrane polarization stimulates efferent pudendal nerve activity, resulting in increased urethral closing pressures and reduced detrusor instability[9]. Noninvasive sacral magnetic stimulation has been shown to activate large sacral nerve fibers, which via the pudendal nerves, innervate the striated sphincters and pelvic floor muscles[2,30].

Magnetic stimulation (MS) has been used to activate the neuromuscular tissue by inducing an electric field this effect was used to develop a novel technique for measuring the pudendal nerve terminal motor latency (PNTML) to the external anal sphincter (EAS) in healthy volunteers and patients with fecal incontinence[29]. Also, study the effect of sacral magnetic stimulation (MS) on the neuropathic rectum and urinary bladder in dogs. It has been demonstrated in a canine model and in humans that sacral MS of both the empty and full rectum showed a significant increase in rectal and vesical pressures and a drop of rectal neck (anal canal) pressure[28]. Shafik and El Sibai in 2000[27] study the effect of magnetic stimulation on the contractile activity of the rectum in humans the clinical trial was performed on 28 healthy volunteers (mean age, 36.6 years; 18 men and 10 women), Concluded that, magnetic sacral stimulation induced rectal evacuation with no adverse effects. The method is simple, easy, safe, and noninvasive and they suggested that MS could applied for the treatment of the fecal incontinence.

Our pelvic floor magnetic stimulation results came in agreement with those of Morren et al.,[21] studied electrical sacral root

stimulation induces defecation in spinal cord injury patients and is currently under examination as a new therapy for fecal incontinence. In contrast to electrical stimulation, magnetic stimulation is noninvasive. To gain more insight into the mechanism of action of sacral root stimulation who, studied the effects of magnetic sacral root stimulation on anorectal pressure and volume in both fecal incontinence and spinal cord injury patients. Repetitive magnetic sacral root stimulation was performed bilaterally using bursts of five seconds at 5 Hz. There were an increase in anal pressure was seen in 100 percent of the control subjects, in 86 percent of the spinal cord injury patients, and in 73 percent of the fecal incontinence patients (P=0.03).

The magnetic sacral root stimulation produces an increase in anal and rectal pressure[28,30] and a decrease in rectal volume in healthy subjects and patients with fecal incontinence or a spinal cord injury[21].

Many factors may have contributed to the marked objective and subjective improvement in continence status observed in a shorter period. First, pelvic floor muscle exercises conducted under the close supervision of a trained professional have proven more effective than pelvic floor exercises performed at home may have contributed to rapid continence improvement. However, the relative contribution of each factor cannot be determined in our study such as the absence of a placebo group in this study. The decision not to include a placebo group was based on the evidence in the current literature that pelvic floor exercise is an effective treatment for fecal incontinence[14,15,23].

Pelvic floor muscle/anal sphincter exercises are often suggested for patients with fecal incontinence. These might be self-directed, taught via verbal and/or written instructions from a health professional, or taught during a vaginal or anal digital examination. The rationale is to enhance sphincter strength, endurance and speed of response by a program of systematic exercises, usually over a period of several months[4]. This could in theory enable the patient to better resist the urge to defecate by use of the external anal sphincter and the puborectalis muscle of the pelvic floor. Better muscle function could also augment resting tone in the anus, thus improving episodes of passive fecal soiling[14].

Our pelvic floor muscles exercises results came in agreement with those of Glazener et al.,[15] reported the results of a study 747 post-natal women with urinary incontinence, 111 of which had faecal incontinence at baseline (57/371 and 54/376 in the intervention and control groups respectively). The specific comparison under consideration was education on pelvic floor muscle training administered vs standard post-natal management which included a brief description of pelvic floor muscle training. Both interventions occurred 3 months post-delivery. The study had 9 month and 6 year follow-up periods. Reported that although significant differences for fecal incontinence were found at 1 year (intervention group: 4% FI vs control group: 11%) these results were not sustained at 6 year follow up (control: 12% vs intervention: 13%) (95% CI -6.4% to 5.1%).

The pelvic floor muscles exercises results of the current study disagreed with those reported by Norton et al [23] reported results from 171 patients referred to a specialist colorectal hospital with episodes of fecal incontinence. These patients were allocated to one of four interventions: a) general faecal incontinence advice b) advice + pelvic floor muscle training with feedback from digital examination c) advice + pelvic floor muscle training with computer assisted biofeedback d) advice + pelvic floor muscle training with computer assisted biofeedback + use of a home biofeedback device. They concluded there was no difference between both groups on any of the fecal incontinence outcomes recorded at 12 months follow-up.

Conclusion

According to the results of this study supported by relevant research work conducted abroad in this area two months of pelvic floor magnetic stimulation and pelvic floor muscle exercise could be effective in treating postnatal fecal incontinence however, pelvic floor magnetic stimulation are

more of superior than pelvic floor exercises on treating such case.

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الملخص العربي

تأثير التنبيه المغناطيسي لتحسين وظيفة عضلات الحوض الرافعة في حالات التبرز اللاإرادي بعد الولادة

الهدف من هذه الدراسة : أجريت هذه الدراسة لتحديد تأثير التنبيه المغناطيسي لعضلات الحوض الرافعة في حالات التبرز اللاإرادي بعد الولادة . **المرضى والطرق :** لقد أجريت هذه الدراسة علي خمسين سيده متطوعة من عيادة الخارجية للوحدة اختلال الوظيفي لعضلات الحوض الرافعة ز مشكلات القولون والشرج بكلية الطب جامعة القاهرة في مرحلة ما قبل انقطاع الطمث تعانين من حالات التبرز اللاإرادي بعد الولادة . وقد تم تقسيمهن عشوائيا إلي مجموعتين(ا،ب) : المجموعة (ا) والتي عولجت بتمرينات لعضلات الحوض الرافعة فقط والمجموعة (ب) والتي عولجت بالتنبيه المغناطيسي لعضلات الحوض الرافعة بالإضافة إلى تمرينات عضلات الحوض الرافعة وكانت مدة العلاج لكلا المجموعتين شهرين متتاليين بمعدل ثلاث أيام أسبوعياً تم تقيميهن مرتين قبل بداية العلاج والمرة الثانية في نهاية العلاج عن طريق قياس اختبارات ديناميكية الإخراج وجدول معدل التبرز وقياس الضغط الشرجي . **النتائج :** أثبتت النتائج من هذه الدراسة أن هناك فروق ذات دلالة إحصائية على المجموعتين (ا،ب) عند مقارنتها بالنتائج الأولية قبل إجراء البحث كذلك وجود فروق ذات دلالة إحصائية واضحة على نتائج مجموعة التنبيه المغناطيسي لعضلات الحوض الرافعة عند مقارنة النتائج بعد العلاج لكتلا المجموعتين . **الخلاصة :** أثبتت النتائج من هذه الدراسة أن كلا من التنبيه المغناطيسي والتمرينات العلاجية لعضلات الحوض الرافعة كان كل منها ذا تأثير فعال وأن كان التنبيه المغناطيسي أكثر تأثيراً وفاعلية إذ ما قورنت بتمرينات لعضلات الحوض الرافعة كوسيلة بديلة من وسائل العلاج الطبيعي لعلاج في حالات التبرز اللاإرادي بعد الولادة .