

THE PERICOACH® SYSTEM–ASSISTED PELVIC FLOOR EXERCISES TO IMPROVE STRESS URINARY INCONTINENCE IN 64-YEAR-OLD WOMAN

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INTRODUCTION

Stress Urinary Incontinence (SUI) is a common condition experienced by millions of women worldwide¹, often brought on by physical exertion such as coughing, sneezing or exercise².

SUI can be debilitating to a woman's self-esteem and wellbeing given its occurrence during regular, daily activities.

The latest clinical guidelines on the nonsurgical management of urinary incontinence (UI) in women from the American College of Physicians recommends pelvic floor muscle training as the first-line treatment in women with SUI³.

This case study features a patient with a long history of SUI and posterior vaginal prolapse. On seeking treatment for her condition, she started using the biofeedback tool The PeriCoach System. The PeriCoach was a useful teaching and motivational device and her pelvic floor muscle training was able to be monitored.

At the first consultation, the patient held little hope of controlling or managing her SUI. Despite her concerns, after three months using the PeriCoach with regular clinician input, the patient was delighted by the rate of improvement of her SUI symptoms.

HISTORY

Emma* is a 64-year-old retired school teacher suffering ongoing SUI.

Presenting in October 2014, Emma reported a long history of SUI, even prior to the birth of her two children. She underwent an urethrotomy in 1973 due to recurrent urinary tract infections. Both her children were vaginal births, with the first child breech in 1977.

She underwent a vaginal hysterectomy in 1996 due to fibroids, dysmenorrhea (heavy bleeding) and resultant anaemia. A long history with constipation since childhood, due in part to a diagnosis of Irritable Bowel Syndrome (IBS), necessitated perineal support while defecating since her children were born.

A posterior vaginal prolapse (rectocele) was surgically repaired in 2004.

Comorbid conditions included being overweight, fibromyalgia (widespread pain and tenderness in her body) and osteoarthritis in the knees. Her medications included Ovestin (vaginal oestrogen), oral HRT and methotrexate injections for her fibromyalgia.

DIAGNOSIS AND FINDINGS

Seventeen years earlier Emma had been treated with computerised pressure biofeedback. Her pelvic floor muscles were graded at 2-3 out of 5 on the modified Oxford Scale. At that stage, she showed improvement over three consultations.

Emma's return for treatment in 2014 was due to a recent diagnosis of pneumonia, which had resulted in increased leakage. Her skin had also become irritated due to the increase in wetness from the SUI.

On digital vaginal examination Emma's pelvic floor muscles were found to be bilaterally thin and of low tone, and were graded 1 out of 5 on the modified Oxford Scale. The patient's opening in the muscle sheet (levator hiatus) at rest was transverse 5cm and anteroposterior 5cm, then on contraction of her pelvic floor muscles she was able to reduce these measurements to transverse 4.5cm and anteroposterior 4cm. Perineal descent was +2cm at rest to +3cm on straining. The examination found good anterior wall support, with the urethra at 2cm.

Excoriation of the perineal skin was noted, with irritation particularly at the area of the prolapse at the vaginal opening.

The vaginal electromyography (EMG) reading showed 5 μ V, with an endurance or hold of 13.7 seconds.

While able to control it, Emma also noted anxiety-induced urgency to pass urine without the leakage (urge incontinence).

TREATMENT AND DISCUSSION

By her second consultation, there was no change in Emma's SUI following one month of pelvic floor exercises, but her general muscle tone had improved.

Emma was then recommended and subsequently purchased a PeriCoach. The personalised device is designed for home use, supported by a web portal and smart phone app for pelvic floor muscle training. Emma was able to have her pelvic floor muscle therapy remotely monitored and assessed via the PeriCoach web portal.

Two months later, Emma returned for her third consultation. Emma had been using the PeriCoach but needed further guidance and assurance about her technique. This is very common, with a quarter of women saying they don't know if their pelvic floor exercises are working⁴. On assessment, it was noted that Emma was overusing her buttocks and bearing down with too much effort. The probe was also positioned incorrectly. The positioning of the sensor probe and Emma's exercise technique were adjusted.

Even after facing some setbacks in her progress due to a severe bout of bronchitis and uncertainty about her technique, Emma's SUI had improved to no more than a few drops of urine, particularly if she utilised her muscles at the time. In fact, Emma was delighted to find her panty liners mainly dry.

At her fourth consultation with just over three months of regular PeriCoach use (between four and seven times per week), Emma had stopped using panty liners altogether.

A follow-up digital vaginal examination found the levator hiatus transverse had improved to 3.2cm at rest and 3cm on contraction and anteroposterior 3cm.

Emma's vaginal EMG reading had increased to 10 μ V (from 5 μ V) and she reached an endurance of 38 seconds. Her pelvic floor muscles had also thickened.

There was no change in her prolapse, but improvement is rarely seen at stage 2 prolapse.

OUTCOME

Emma was extremely happy with the result of her therapy, even shedding tears of relief and happiness at her final consultation. She resolved to continue her regular PeriCoach use.

This positive result for Emma is consistent with clinical evidence suggesting that pelvic floor exercises performed regularly under supervision can improve continence⁵.

PeriCoach enabled Emma to get daily visual and audio feedback, which was supported by clinician input to correct contraction technique. This case demonstrates that patients who seek advice from a continence professional can ensure they achieve the full benefit of the PeriCoach System.

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*Name has been changed to protect patient privacy.

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