

SYCFIM, Clinical Study in Patients with Stress Urinary Incontinence, Urgency and Mixed

Oscar Raúl Muñoz Ángel¹, Miguel Ángel Gómez², Cristian Mauricio Bedoya³

¹Gynecology Department, Hospital “Raúl Orejuela Bueno”, Palmira, Colombia

²Emergency Unit, Hospital “La Buena Esperanza”, Yumbo, Colombia

³Protection Direction, “Institute of Family Welfare of Colombia”, Cali, Colombia

Email address:

ormangel62@hotmail.com (O. R. M. Angel), magmpsi2911@gmail.com (M. A. Gómez), cristianbedoya18@hotmail.com (C. M. Bedoya)

To cite this article:

Oscar Raúl Muñoz Ángel, Miguel Ángel Gómez, Cristian Mauricio Bedoya. SYCFIM, Clinical Study in Patients with Stress Urinary Incontinence, Urgency and Mixed. *Journal of Gynecology and Obstetrics*. Vol. 9, No. 4, 2021, pp. 132-135.
doi: 10.11648/j.jgo.20210904.18

Received: July 22, 2021; Accepted: August 16, 2021; Published: August 31, 2021

Abstract: The history, evolution and treatment of urinary incontinence have relevant nuances, such as the establishment of world urinary incontinence day, among others. Large studies show the psychological condition of the women who suffer from it, the high state and personal economic expenses, the medical ignorance of the importance of this pathology, even reaching the environmental topic of contamination due to the exponential increase in the consumption of diapers. This article shows that the SYCFIM hysterectomy surgical technique achieves the curative treatment of patients with stress, urgency, and mixed urinary incontinence, on the basis that the surgical technique achieves the anatomical restoration of the urethral vesicle in its original position, achieving with this, the most important causes of these incontinences disappear. It was evidenced in this study that in the early postoperative control of the SYCFIM technique it achieved the disappearance of urinary incontinence in all patients, it was also observed that after a few years some patients reported the reappearance of incontinence in patients who stopped exercising Kegel, and in the patients who resumed Kegel exercise, incontinence disappeared again, establishing that this exercise is relevant in the treatment of urinary incontinence. A small group of patients who could not or did not want to do the Kegel exercise were provided with electrostimulation equipment that is used in physiatry, achieving a positive response to the disappearance of incontinence in all these patients. And an even smaller group of patients who presented stress incontinence and if they did the Kegel exercise (confirming their tonicity by vaginal touch), the SYCFIM exercise was established (which is Kegel, only that it is performed prior to events that generate increased abdominal pressure, that is, before sneezing or before coughing, sustained Kegel must be performed, thus avoiding urine leakage), also achieved the disappearance of incontinence with this management. The evaluations of the type of incontinence that the patient presents, the postoperative evolution of the presence or absence of incontinence, and its management with the Kegel exercise were carried out by a professional psychologist. The excellent results obtained with the SYCFIM technique for stress, urge and mixed incontinence, force the urology and gynecology guild to review the traditional technique, which could even be classified as iatrogenic, since it increases two and a half times the incidence of urinary incontinence.

Keywords: Hysterectomy, Incontinence, Urinary, Mixed, Cysto-urethro-colpus Suspension, SYCFIM, Kegel Exercise, SYCFIM Exercise

1. Introduction

Hysterectomy is the second most performed surgery in the world and has ancient origins, although the date of origin and its location have not been unified by historians. One of the most well-founded origins is in the year 123 BC. by J.C. which was performed vaginally with the resection of the neck

and part of the body of the uterus [1]. Centuries later, and anecdotally in 1670, it is published as Mrs. Fe Haworth, a 46-year-old peasant, who, carrying a heavy load of coal, experienced a total prolapse of her uterus, and frustrated by the frequent occurrence of this event, shot of This as hard as possible and I cut it with a knife, the bleeding stopped and did not cause his death, but he did remain with urinary incontinence. [1]. Regardless of this anecdote, the

hysterectomy begins by being performed vaginally [2], this basically because the cause was uterine prolapse, later abdominal hysterectomy gains relevance, which can be open or laparoscopic, reaching the so-called surgical robots [3]. Regardless of the surgical route used (abdominal, vaginal, laparoscopic, or robotic), the hysterectomy technique has postoperative complications, such as urinary incontinence. The reason for this complication is easy to predict due to the descent of the urethro-bladder junction, and being outside the abdominopelvic cavity, which causes altered pressure compensations (it is normal that when the patient coughs, she sneezes or perform abdominal forces, if the urethro-bladder junction and the bladder are within the abdominopelvic cavity, the pressures are distributed homogeneously and do not cause urine to escape). With the traditional technique, the round ligaments and with it the support of the bladder are eliminated, allowing their descent, and the exit of the abdominal cavity from the urethro-bladder junction, causing urinary incontinence according to the hydrodynamic pressure law of Danielle Bernoulli [4]. Therefore, in North American legislation, in the consent signed by patients prior to surgery, it is established that urinary incontinence after hysterectomy is not a cause of legal action [4]. In 1907 the concept of girth, sling or sling began, and when Von Giordano made the first description of a sling surgery, around the urethra, then Dr. Stoeckel in 1917 was the first to describe an approach combining the abdominal and the vaginal one for the realization of its girth, adding to the technique some points of bladder neck plication; Later, it evolves with different techniques, reaching the cystourethropexy, Burch type in 1961, with its early and modern modifications that also allows other concomitant surgeries such as hysterectomy [5]. It should be noted that the term cystourethropexy with which this surgery is called is not the appropriate one, since it is basically a urethropexy.

The development of a hysterectomy technique that does not generate these alterations should not cause the damage generated by the traditional technique, which is achieved if the round ligaments are not removed, and, if their fixation of the ligaments to the dome, restoring its support function, adding to this a new support having the abdominal-pelvic fascia as support.

The beginnings of this research are based on a study reported with 22 patients, and with the experience of many other interventions performed with the same technique, the prophylaxis of postoperative urinary incontinence was outlined, and the disappearance of urinary incontinence was achieved in patients. patients who had incontinence, thus generating the possibility that surgery not only prevents the appearance of postoperative urinary incontinence, but also treats urinary incontinence in patients who are going to be hysterectomized [6]. Urinary incontinence has a notable negative impact on the quality of life of patients, which produces stigmatization and modifies their social behavior, in addition to economic costs, various diseases and psychological instability [7]. Based on the definition of urinary incontinence as any urine loss, according to the International Continence Society (ICS), the figures for

the sum of the damage generated by the traditional hysterectomy technique and the presence of urinary incontinence prior to surgery are high, since it is reported that women between 40 to 50 years of age suffer from urinary incontinence is between 20% to 45% [7]. And the traditional hysterectomy performed in patients between 40 and 50 years of age statistically generates between 50% and 100% of urinary incontinence due to damage to the supporting structures, which establishes the importance of a prior diagnosis of urinary incontinence in patients scheduled to hysterectomy. The reported figures may be lower than the real ones, due to the little information of the patient in this pathology, since it is painful for patients to manifest their urinary incontinence, studies show that this pathology in this age range is close to 70% [8]. Another aspect that cannot be ignored of urinary incontinence in women is the billionaire expenses that this pathology generates, it has been estimated expenses of 18 billion dollars a year in the United States of America, for which an average elevated surgical technique [9, 10]. These expenses are generated for multiple reasons, one of them is the cost of surgery to correct urinary incontinence. Another cost generated for the treatment of urinary incontinence is that of urodynamics for its diagnosis, which is requested according to the protocol, and whose validity was confirmed by the patient's clinic, since the studies show that there are no statistical differences between the clinic and urodynamics, with which ultrasound should be valued as a diagnostic method to reduce costs.

In recent years, numerous studies have been published on the use of ultrasound as a diagnostic method, where it is evidenced that ultrasound allows evaluating mobility of the bladder neck and urethra, the anatomy of the neck, the presence of stress urinary incontinence, the presence of pelvic organ prolapse, and allows assessment of changes after surgical treatment [11]. Diagnostic ultrasound in urinary incontinence clearly establishes the bladder-urethral anatomical position as the cause of the disease. Ultrasounds and transperineal or translabial ultrasound are in the process of becoming a standard diagnostic method in urogynecology [12-14]. The economic investment in the management of urinary incontinence is high, both at a personal, institutional, and state level, in personal expenses, diagnosis and medical-surgical expenses.

With the development of the surgical technique that respects the anatomical principles of the evolution of the human body with additional costs in materials that do not exceed three dollars, that is easy to implement, that does not need a specialist other than the gynecologist and with satisfactory results should be valued and implemented. It is also important to establish the Kegel exercise as part of the treatment of this new surgical technique, necessary in the muscular component of the pelvic floor [15-17], since large investigations report its benefit and summarize it by saying that: "The pelvic floor has a brain" [18-21].

2. Methodology

This article corresponds to a controlled clinical trial, using

the new SYCFIM hysterectomy surgical technique in the intervention. This intrafacial hysterectomy technique does not eliminate the round ligaments, but instead fixes the round ligaments to the dome (reestablishing their support function), and a new urethro-vesical support, fixing the dome to the abdomino-pelvic fascia with a non-absorbable suture. This is a real urethro-cysto-colpo-pexia.

The technique is developed by following the following steps:

- 1) Fix the round ligaments with nonabsorbable suture to the lateral border of the dome, on the side that corresponds to the ligament.
- 2) Continue with a continuous dome suture of 3 to 4 points until reaching the opposite end.

- 3) Fixation of the second-round dome ligament is made.

- 4) The suture is then continued exiting the pelvic cavity to the abdomino-pelvic fascia, furthest from the midline.

- 5) Continuity points are placed on average of six, until reaching the other side of which it came out.

- 6) The abdominal-pelvic cavity is re-entered, and the suture is fixed at the anterior dome-shaped round junction.

- 7) Finally, the edge of the bladder is attached to the dome.

After surgery, a prospective study was carried out in 191 patients with diagnoses (68 patients with SUI, 11 patients with UI and 112 patients with SUI). See. Graph 1. Profile of Patients Evaluated.

Table 1. Profile of evaluated patients.

Type of incontinence	Number of patients	Age range (years)	Weight range (kilograms)	Height range (centimeters)
Effort	68	29-68	62-78	150-162
Emergency	11	32-63	59-88	149-160
Mixed	112	30-70	57-81	150-166
Total patients	191			

Videos were taken from each patient as evidence of the process, which includes name, age, identity document number, contact number, incontinence prior to surgery and its disappearance in the postoperative period, which serves as support for subsequent consultations.

The studies prior to surgery were clinical evaluations carried out by the gynecologist through an interview to take the medical history.

Subsequently, the 191 women underwent the SYCFIM surgical technique at the Raúl Orejuela Bueno Hospital in Palmira-Colombia. Surgery performed by a gynecologist and assistant (general practitioner), on the dates between 06/01/2014 and 10/25/2019.

3. Results

The postoperative control carried out at two weeks showed the disappearance of SUI, UI and SUI, and two months after surgery the disappearance of SUI, UI and SUI persisted clinically.

Finally, after an average of 43 months after surgery, it is performed again by interview by a psychologist, confirmation of the type of UI prior to surgery, and the existence of UI after SYCFIM.

Incontinence resolution was evidenced in all patients during the first 6 months (100%).

22 patients who reported NOT performing Kegel exercise after 6 months (11.5%), presented UI; They were given electrical stimulation equipment to use it daily for a period of 30 days and 20 minutes each day, which reported after that period that the incontinence had disappeared in all (100%).

Three patients (1.5%) with permanence of the Kegel exercise presented SUI, the medical examination showed good pelvic floor tonicity on vaginal examination. In these patients, SYCFIM exercise was established as initial experimental treatment (which is Kegel, only that it is performed prior to events that generate increased abdominal

pressure, that is, before sneezing or coughing, sustained Kegel should be performed, thus avoiding urine leakage), which was achieved by the 3 patients.

98.5% of the patients operated on with the SYCFIM technique who performed the permanent Kegel exercise, the SUI, UI and SUI disappeared.

4. Discussion

UI is a pathology that must be looked at with the nuance that corresponds to it, it is a pathology that the uro-gynecology service has had deficient solutions in the field of UI and UI, the possible origins of these shortcomings are due to ignorance of the cause, which basically are established in alterations that they generate with increasing age and its consequences.

Advances in ultrasound in the diagnosis of SUI, UI and MUI clearly establish that it is the anatomical position of the vesico-urethral system in the abdomino-pelvic cavity that is the cause of the pathology and therefore the solution. The SYCFIM technique restores these structures to their normal anatomical position, which generates these healing statistics.

Increasing age has consequences at the musculoskeletal level, which is why the Kegel exercise is logically established as a basic need, because the muscular component that is not stimulated atrophies. At present, this exercise is presented from a more sexual perspective, and its importance is as relevant as brushing to avoid tooth decay.

5. Conclusions

If the fundamentals of the SYCFIM technique are objectively analyzed, it is logical to understand its healing results of SUI, UI and SUI of 98.5%.

The cost increases in hysterectomy do not exceed three dollars in expenses for surgical supplies.

The importance of educating patients in the performance of Kegel exercise, if necessary, whether in a quixotic way, if

it is not done for the management of UI, it should be done for the management of fecal incontinence.

Currently, there are surgical alternatives that generate high-cost overruns, some already ruled out due to secondary complications or the use of materials that cause pathologies, the SYCFIM on the other hand generates an additional cost of three dollars in suture materials and is easy to perform in the treatment of hysterectomies associated with urinary incontinence. SYCFIM makes the disappearance of the UI since it performs anatomical restoration of the structures involved in urination. This is a technique that can be used to heal both stress UI and mixed UI.

The opinion of most gynecologists and urologists in the world is that urinary incontinence does not have surgical treatment, however, the SYCFIM technique establishes an inexpensive and easy alternative for this pathology. The next study will include the participation of 120 hysterectomized patients with this technique and performed in association with 20 gynecologists from different countries, hoping to establish a new path to the health of women in the world who suffer from this pathology.

References

- [1] Sparic R, et al. (22 de 01 de 2018). *Hysterectomy throughout history*. Obtenido de [https://www.ncbi.nlm.nih.gov/pubmed/term.Hysterectomy throughout history](https://www.ncbi.nlm.nih.gov/pubmed/term.Hysterectomy%20throughout%20history). Acta Chir Iugosl.
- [2] Balaguero L. (1973). La histerectomía vaginal a través de los tiempos, Revista de estudios históricos informativos de la medicina, Barcelona, Centro de documentación de historia de la medicina, abril de 1973 disponible en <https://dialnet.unirioja.es/servlet/articulo?codigo=4312937>.
- [3] Mo Med. 2015 Nov-Dec; 112 (6): 439-442. Vaginal Hysterectomy: The Present paste, Dionysios K. Veronikis.
- [4] Altman D, Granath F, Cnattingius (2007). Histerectomía y riesgo de incontinencia urinaria de esfuerzo quirúrgica. The Lancet, 2007. 307: 1494-99.
- [5] Karin S. et al. (2014). Economic Burden of Urgency Urinary Incontinence in the United States: Systematic. February 2014 Vol. 20, No. 2. Review: <https://www.jmcp.org/doi/pdf/10.18553/jmcp.2014.20.issue-2?page=19>.
- [6] Rodríguez-Núñez R, Álvarez E, Salas L, González-González A. Prevalence of urinary incontinence and possible risk factors among women in our health area Servicio de Obstetricia y Ginecología. Complejo Hospitalario de Ourense. Ourense. España. Médico de Familia. Centro de Saude Vilardevs. Ourense. España. 10.1016/S0210-573X (07)74492-1 Páginas 128-136 (Julio 2007).
- [7] Abrams P, Cardozo L, Fall M, Griffiths D, Rosier P, Ulmsten U et al. (2002). The standardization of terminology in lower urinary tract function: report from the standardization subcommittee of the International Continence Society. Neurourol Urodyn 2002; 21: 167-178.
- [8] Pizzol, D. et al. (2020). Urinary incontinence and quality of life: a systematic review and meta-analysis. *Aging Clinical and Experimental Research*, 33: 25-35.
- [9] Mendes A, et al. (2017). Experiencias de incontinencia urinaria de mujeres adultas: una revisión sistemática de evidencia cualitativa. Afilaciones expandir 2017-003389.
- [10] 9. Minner P, (2004). Aspectos actuales en el tratamiento de la incontinencia urinaria de esfuerzo en mujeres. Economic and personal impact of fecal and urinary incontinence. Gastroenterology, 126, pp. 8-13; http://www.scielo.org.mx/scielo.php?pid=2007-4085-000500411&scriptsci_arttext 2017.
- [11] Miguel Angel Jiménez Cidre, Luis López-Fando Lavalle, Cristina Quicios Dorado, Cristina de Castro Guerin, Agustín Fraile Poblador y Teodoro Mayayo Dehesa. (2006). Servicio de Urología. Hospital Ramón y Cajal. Madrid. España Arch. Esp. Urol., 59, 4 (431-439).
- [12] López-Fando Lavalle, Cristina Quicios Dorado, Cristina de Castro Guerin, Agustín Fraile Poblador y Teodoro Mayayo Dehesa. (2006). Servicio de Urología. Hospital Ramón y Cajal. Madrid. España. Urol; 59, 4 (431-439).
- [13] Fernández I, Maymo T, Berenguer A. (2000). La ecografía en el diagnóstico de la incontinencia urinaria Hospital Universitario de Getafe y Hospital Ramón y Cajal Madrid Clínicas Urológicas de la comutense, 8, 117-138, Servicio de Publicaciones. 13CM, Madrid.
- [14] Cassado, J. (2001). "Estudio ecográfico uretrovesical-introital comparativo entre mujeres con incontinencia urinaria de esfuerzo por hipermovilidad uretral y mujeres continentes. Valoración de variables ecográficas discriminatorias". Tesis doctoral. Universidad Autónoma de Barcelona. Barcelona.
- [15] Pizzoferrato AC, Fauconnier A, Bader G. Valor de la medición ecográfica de la movilidad del cuello de la vejiga en el tratamiento de la incontinencia urinaria de esfuerzo femenina. Gynecol Obstet Fertil. Enero de 2011; 39 (1): 42-8.
- [16] Eficiencia del ejercicio de Kegel evaluada mediante estudio urodinámico en pacientes con incontinencia urinaria Gutiérrez-González A, Álvarez-Tovar LM, García-Sánchez D, Pérez-Ortega R, Guillen-Lozoya AH Rev. Mex: Urol: 2019; 79 (2): pp. 1-8.
- [17] Álvarez-Tovar LM, et al. Kegel exercise efficiency evaluated through urodynamic study in patients with urinary incontinence. *Rev. mex. urol.* 2019, vol. 79, n. 2, e02. Epub 27-Nov-2020. ISSN 2007-4085.
- [18] Eficiencia del ejercicio de Kegel evaluada mediante estudio urodinámico en pacientes con incontinencia urinaria Gutiérrez-González A, Álvarez-Tovar LM, García-Sánchez D, Pérez-Ortega R, Guillen-Lozoya AH Rev. Mex: Urol: 2019; 79 (2): pp. 1-8.
- [19] Torquedo de la Torre F, Zarco Rodríguez J. Guide to good clinical practice in Urinary Incontinence. Atención primaria. Ed. International marketing & communication S. A. Madrid. Ministerio de sanidad y consumo y Organización médica colegial. 6-11-2019.
- [20] Leñero E, Castro R., 2 Viktrup L., Bump R. C. Neurophysiology of the lower urinary tract and urinary continence. Revista mexicana de Urología 2007; 67 (3): 154-159.
- [21] Pelvic floor muscle training for urinary incontinence in women: https://www.cochrane.org/CD005654/INCONT_pelvic-floor-muscle-training-urinary-incontinence-women 5/10/2018.