



Research Article

# Endometrial Cancer Initial Results of Conservative Hormonal Treatment in Postmenopausal Patients: A Possible New Trend?

Soderini Alejandro<sup>1\*</sup>, Crespe Martin<sup>1</sup>, Valeria Depietri<sup>1</sup>, Moschen Horacio<sup>2</sup>, Mendez Martin<sup>2</sup>, Aragona Alejandro<sup>3</sup>, Serini<sup>3</sup>, Juan Manuel<sup>4</sup>, Plotti Francesco<sup>4</sup>

<sup>1</sup>Gynecologic Oncology Unit, Hospital Oncológico Marie Curie, Argentina

<sup>2</sup>Gynecologic Oncology Unit, Hospital Donacion F Santojanni, Argentina

<sup>3</sup>Gynecologic Unit, Hospital Luisa C de Gandulfo, Argentina

<sup>4</sup>Campus BioMedico di Roma, Argentina

\*Correspondence author: Soderini Alejandro, Gynecologic Oncology Unit, Hospital Oncológico Marie Curie, Argentina; Email: [alejandrosoderini@gmail.com](mailto:alejandrosoderini@gmail.com)

Citation: Alejandro S, et al. Endometrial Cancer Initial Results of Conservative Hormonal Treatment in Postmenopausal Patients: A Possible New Trend? J Surg Res Prac. 2025;6(2):1-6.

<https://doi.org/10.46889/JSRP.2025.6211>

Received Date: 10-08-2025

Accepted Date: 25-08-2025

Published Date: 31-08-2025



Copyright: © 2025 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CCBY) license (<https://creativecommons.org/licenses/by/4.0/>).

## Abstract

The hormonal treatment with progestins, in low-grade G1 endometrioid endometrial cancers, has been approved as an alternative fertility-sparing treatment in young patients, under 40 years old, with fertility wishes and the possibility of close follow-up. However, its use in postmenopausal patients continues being debated.

Objective: To analyze the short and medium-term results of conservative hormonal treatment applied to postmenopausal patients with low grade G1 endometrioid endometrial cancer.

**Keywords:** Endometrial Cancer; Conservative Treatment; Hormonal Treatment; LNG-IUS

## Introduction

Endometrial cancer represents the most commonly diagnosed gynecological malignancies in developed countries, accounting for approximately 63,000 newly diagnosed cases in 2018 in the United States. The incidence in 2018 was about 382,000 new cases worldwide. The mortality rate was above 89,000 in 2018 [1].

Staging of endometrial cancer was changed from clinical to surgical in 1988, by the FIGO Gynecologic Oncology Committee [2]. Surgery is the primary treatment for endometrial cancer and it is possible to obtain operability ranging from 92 to 96% of patients in addition to primarily treating the disease with curative intention and the histopathological information necessary to determine the risk factors in order to select patients for adjuvant treatment [3]. Hysterectomy with or without bilateral salpingo-oophorectomy enables tumor removal and classification on the basis of histology, grade and myometrial invasion depth. The role of retroperitoneal staging is still controversial; however, intraperitoneal and retroperitoneal evaluation should be

considered equally important aspects in surgical staging. If the tumor grade, histological type and imaging techniques (magnetic resonance or PET-scan) are available preoperatively or intraoperatively, lymphadenectomy may be avoided to a greater or lesser extent, in cases of low risk of recurrence [4].

The conservative hormonal treatment with progestins, in low-grade G1 endometrioid endometrial cancers, has been approved as an alternative fertility-sparing treatment in young patients under 40 years old, with fertility wishes and the possibility of close follow-up [5-7]. The aim of the present article is to analyze the short and medium-term results of conservative hormonal treatment applied to postmenopausal patients with low grade G1 endometrioid endometrial cancer [7].

## Material and Method

### *Inclusion Criteria*

- Patients with Endometrioid Adenocarcinoma of Endometrium G1 - Low Risk Ones
- Clinical Contraindications for Surgery
- Refusing the Radiotherapy Treatment by the patient

### *Exclusion Criteria*

- Medium and High Risk Endometrioid Adenocarcinoma of Endometrium
- Other Endometrial Histotype of Endometrial Cancer
- Second Neoplasms

It was evaluated:

- End point 1: evaluation of the Disease Free Interval (DFS)
- End point 2: evaluation of the Overall Survival (OS)

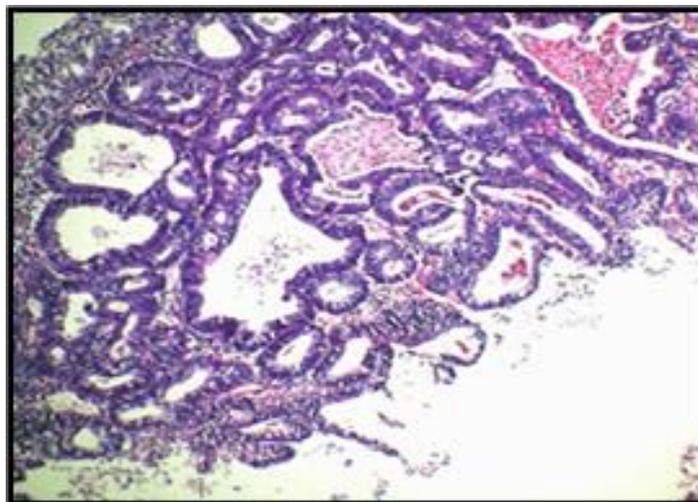
This is a prospective trial which began in January, 2015. There were included 7 postmenopausal patients: 4 with endometrioid GH1 adenocarcinoma (Fig. 1) and 3 with complex atypical hyperplasia (Fig. 2).

The patients characteristics were Body Mass Index > 40, DBT type II, hyperlipidemia, smokers and high cardiovascular risk. All the patients were initially biopsied by hysteroscopy and endocervical disease was ruled out. Furthermore, the abdominal-pelvic MRI was performed for the diagnosis of myometrial invasion and lymph nodes involvement to decide the conservative treatment.

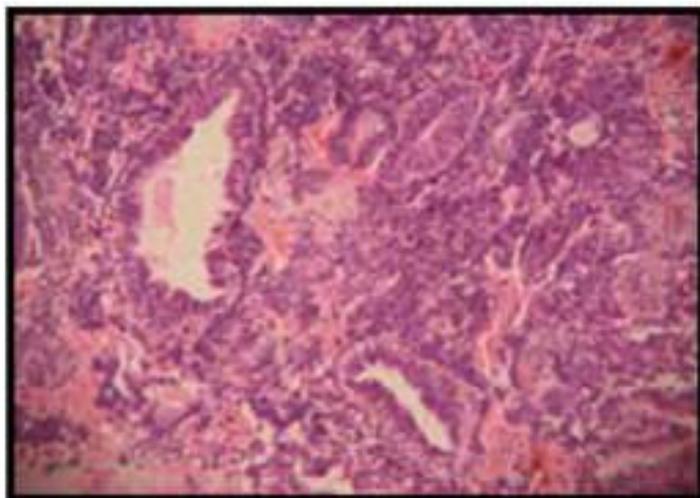
All patients had contraindication for surgery. So, Hormonal treatment was indicated as an alternative to Radiotherapy (RT). The four patients declined to RT. The Hormonal treatment was placing Levonorgestrel -Releasing Intrauterine Device (LNG-IUS) (Fig. 3). The Follow-up was performed as follows: at least 4 months - maximum 6 months by pelvis examination, hysteroscopy with endometrial biopsy and abdominopelvic MRI. Survival rates, pathological findings and follow up were analyzed.

## Results and Discussion

The median age of the patient was 68 years old. In all the cases, the biopsies performed showed a progressive pathological regression of the initial lesions, leading to an atrophic endometrium in the last controls (Fig. 4). There were no adverse effects related to treatment. Up to now - 10 years of follow-up, all the patients are alive and free of disease (disease free interval and overall survival rates of 100%).



**Figure 1:** Endometrioid G1 adenocarcinoma.



**Figure 2:** Complex atypical hyperplasia.



**Figure 3:** Levonorgestrel intrauterine device.



**Figure 4:** Atrophic endometrium.

## Discussion

Since Creasman, et al., described the correlation between the extrauterine spread and the uterine pathological risk factors in endometrial cancer, the surgical exploration of the lymph nodes status has been mandatory [8,9]. Surgical staging, including lymphadenectomy, is part of the standard treatment for this disease [4,7,10].

The majority of endometrial cancers are diagnosed early stage (80% in stage I) and usually described in postmenopausal women, however, it is diagnosed in a 4-5% of patients under forty years old. and with fertility wishes [5-7]. So, there were described conservative treatments for those cases, but it is controversial in postmenopausal women [7]. Most patients with endometrial cancer have an excess of estrogen and typically show a characteristic clinical profile: high Body Mass Index (BMI) that is considered as overweight (BMI 25-30) or obese (BMI 30), often with other components of metabolic syndrome (hypertension, diabetes) [7,10,11]. This is the most commonly identified risk factor because obesity is associated with peripheral estrogen conversion via aromatization in adipose tissue [7,10,12,13].

Conservative management of Endometrial Cancer is based principally on medical treatment with oral progestins. Hormonal therapy, alone or in a combination with hysteroscopic ablation. Progestins used are medroxyprogesterone acetate or megestrol acetate [5,14,15]. Anastrozole 1 mg is also described as an hormonal option alone or after medroxyprogesterone with or without placing a levonorgestrel-releasing IUD in premenopausal women [16,17].

Anchezar et al., published the Buenos Aires experience in conservative treatment for 25-40 years old patients (pts) with low risk endometrioid endometrial cancer G1, using high dose 200-500 mg. of medroxyprogesterone, three month minimum. This paper described 6/7 pts had a complete pathological response; 3/7 became pregnant (in one patient twice), obtaining four new healthy newborns. All these women were free of disease after 7-12 years follow-up without completing surgical staging treatment at the time or after the delivery.

Another method of treatment is Levonorgestrel-releasing IUD for 12 months minimum [9,18,19]. It produces a local pathological regression of the tumor in the medium and long term using, with or without GnRH analogues or in combination with oral progesterone [20]. The IUD is removed when patients are ready to attempt pregnancy [9,18,19].

In postmenopausal women, conservative hormonal treatment it is not the first choice of treatment, yet. Radiotherapy is the election therapy when surgery is contraindicated related to adverse clinical conditions [7,10]. But which should be the therapy of choice for patients when standard surgery is contraindicated and refused radiotherapy?

In our initial experience, we believe we are opening a new therapeutic door for those cases. In the four patients treated, a complete pathological regression to atrophic endometrium was observed. There were no adverse effects related to treatment. Up to now, all the patients are alive and free of disease (disease free interval and overall survival rates of 100%). In this pandemic context, the International Gynecologic Cancer Society recommendations, supports our protocol of treatment [21].

In conclusion, these excellent results obtained with the use of hormonal therapy with LNG-IUD in those postmenopausal patients with high surgical risk and who in turn refuse to receive radiotherapy, showed to be safe and feasible. This treatment could be taken into account as a conservative alternative therapeutic option for the for low-grade endometrioid adenocarcinoma in postmenopausal women, as well as, for those patients who are affected by this COVID-19 pandemic, that in all the cases, a complete regression of the initial lesion was observed [21].

The advances in molecular staging of endometrial cancer, will help us to select the correct patient for this conservative therapeutic approach. The question is, if it must be add antiaestrogens as anastrozolas part of the treatment for confirmed molecular and imaging low risk endometrial cancer with the presence of hormonal receptors. On the other hand, the study of BCRA1 and 2 and PDL-1 receptors, could be necessary in order to a possible maintenance therapeutic plan with PARP inhibitors and immunotherapy [22]. Despite these results obtained, it would be necessary to increase the number of cases and studies in this regard to routinely validate it. We are asking ourselves if all those modified strategies of treatment have arrived for a permanently staying? We believe a new door was opened to this respect. The research and time will give us the answer.

## Conclusion

Excellent results were obtained with the use of hormonal therapy in those postmenopausal patients with high surgical risk and who in turn refuse to receive radiotherapy. This treatment could be taken into account as a conservative alternative treatment option for the for low-grade endometroid adenocarcinoma in postmenopausal patients, as well as, for those patients who are affected by this COVID-19 pandemic, that in all the cases, a complete regression of the initial lesion was observed. Despite these results obtained, it would be necessary to increase the number of cases and studies in this regard to routinely validate it.

## Conflict of Interest

No conflict of interest from any source.

## Ethical Approval and Consent to Participate

Ethical approval was obtained by the Health Ethical Committee of the University of Calabar Teaching Hospital and consent to participate was issued and participants counseled on the importance of the research.

## Consent for Publication

Consent was given for publication.

## Funding

There are no sources of funding to declare.

## Author's Contribution

Conceptualization, methodology and validation, Soderini,Alejandro - Aragona, Alejandro.

Formal analysis, investigation, resources and data curation,Crespe, Martin.

Writing-original draft preparation, Moschen, Horacio.

Writing-review and editing,Crespe, Martin - Mendez, Martin.

Visualization and supervision,Serini, Juan Manuel.

Project administration, Soderini, Alejandro.

All authors have read and agreed to the published version of the manuscript.

## Data Availability Statement

Data supporting these findings are available within the article or upon request.

## Institutional Review Board Statement

Ethical review and approval were waived for this study due to the delay and impact of the COVID-19 pandemic.

## Informed Consent Statement

Informed consent was obtained from all subjects involved in the study. Written informed consent has been obtained from the patients to publish this paper.

## Sample Availability

The authors declare that no physical samples were used in this study.

## References

1. Brüggmann D, Ouassou K, Klingelhöfer D, Bohlmann MK, Jaque J, Groneberg DA. Endometrial cancer: Mapping the global landscape of research. *J Transl Med.* 2020;18(1):386.
2. Haltia UM, Bützow R, Leminen A, Loukovaara M. FIGO 1988 versus 2009 staging for endometrial carcinoma: A comparative study on prediction of survival and stage distribution according to histologic subtype. *J Gynecol Oncol.* 2014;25(1):30-5.
3. Falcone F, Balbi G, Di Martino L, Grauso F, Salzillo ME, Messalli EM. Surgical management of early endometrial cancer: An update and proposal of a therapeutic algorithm. *Med Sci Monit.* 2014;20:1298-313.
4. Soderini A, Depietri V, Crespe M, Rodriguez Y, Aragona A. The role of sentinel lymph node mapping in endometrial

- carcinoma. *Minerva Ginecol.* 2020;72(6):367-83.
5. Anchezar JP, Soderini A, Sardi JE. Preservation of fertility in young women with endometrioid endometrial cancer stage I: Long-term follow up using primary hormonal treatment. *Int J Gynecol Cancer.* 2003;13(Suppl 1):75.
  6. Trojano G, Olivieri C, Tinelli R, Damiani GR, Pellegrino A, Cicinelli E. Conservative treatment in early stage endometrial cancer: a review. *Acta Biomed.* 2019;90(4):405-10.
  7. Soderini A, Cuneo N, Aragona A, Moschen H, Mendez M. El carcinoma de endometrio. Parte II - Tratamiento conservador del cáncer de endometrio - Hormonoterapia como alternativa terapéutica. In: *Manual E-Book de Ginecología Oncológica.* Hospital Oncológico Maria Curie; 2020:857-98.
  8. Creasman WT, Morrow CP, Bundy BN, Homesley HD, Graham JE, Heller PB. Surgical pathologic spread patterns of endometrial cancer: A Gynecologic Oncology Group study. *Cancer.* 1987;60(8 Suppl):2035-41.
  9. Gunderson CC, Fader AN, Carson KA, Bristow RE. Oncologic and reproductive outcomes with progestin therapy in women with endometrial hyperplasia and grade 1 adenocarcinoma: A systematic review. *Gynecol Oncol.* 2012;125:477-82.
  10. Devesa N, Soderini A. Cáncer de endometrio. Capítulo XI: Tumores de origen ginecológico. In: *El cirujano y el manejo multidisciplinario del cáncer.* Asociación Argentina de Cirugía. 1<sup>st</sup> Ed. Buenos Aires; 2014:501-10.
  11. Lasalandra C, Coviello M, Falco G. Serum vascular endothelial growth factor and adiponectin levels in patients with benign and malignant gynecological disease. *Int J Gynecol Cancer.* 2010;20(4):605-10.
  12. Nagle CM, Marquart L, Bain CJ. Impact of weight change and weight cycling on risk of different subtypes of endometrial cancer. *Eur J Cancer.* 2013;49:2717-26.
  13. Corzo C, Santillan NB, Shannon N, Westin S, Ramirez P. Updates on conservative management of endometrial cancer. *J Minim Invasive Gynecol.* 2018;25(2):308-13.
  14. Gonthier C, Walker F, Luton D, Yazbeck C, Madelenat P, Koskas M. Impact of obesity on the results of fertility-sparing management for atypical hyperplasia and grade 1 endometrial cancer. *Gynecol Oncol.* 2014;133:33-7.
  15. Pal N, Broaddus RR, Urbauer DL. Treatment of low-risk endometrial cancer and complex atypical hyperplasia with the levonorgestrel-releasing intrauterine device. *Obstet Gynecol.* 2018;131(1):109-16.
  16. Straubhar A, Soisson AP, Dodson M, Simons E. Successful treatment of low-grade endometrial cancer in premenopausal women with an aromatase inhibitor after failure with oral or intrauterine progesterone. *Gynecol Oncol Rep.* 2017;21:10-2.
  17. Burnett A, Bahador A, Amezcua C. Anastrozole an aromatase inhibitor and medroxyprogesterone acetate therapy in premenopausal obese women with endometrial cancer: A report of two cases successfully treated without hysterectomy. *Gynecol Oncol.* 2004;94:832-4.
  18. Minig L, Franchi D, Boveri S, Casadio C, Bociolone L, Sideri M. Progestin intrauterine device and GnRH analogue for uterus-sparing treatment of endometrial precancers and well-differentiated early endometrial carcinoma in young women. *Ann Oncol.* 2011;22:643-9.
  19. Laurelli G, Di Vagno G, Scaffa C, Losito S, Del Giudice M, Greggi S. Conservative treatment of early endometrial cancer: Preliminary results of a pilot study. *Gynecol Oncol.* 2011;120:43-6.
  20. Colombo N, Creutzberg C, Amant F. ESMO-ESGO-ESTRO consensus conference on endometrial cancer: Diagnosis, treatment and follow-up. *Int J Gynecol Cancer.* 2016;27(1):2-30.
  21. Ramirez PT, Chiva L, Eriksson AGZ, Frumovitz M, Fagotti A, Gonzalez Martin A, et al. COVID-19 global pandemic: Options for management of gynecologic cancers. *Int J Gynecol Cancer.* 2020;30(5):561-3.

**Journal of Surgery Research and Practice**



**Publish your work in this journal**

Journal of Surgery Research and Practice is an international, peer-reviewed, open access journal publishing original research, reports, editorials, reviews and commentaries. All aspects of surgery health maintenance, preventative measures and disease treatment interventions are addressed within the journal. Medical surgeons and other researchers are invited to submit their work in the journal. The manuscript submission system is online and journal follows a fair peer-review practices.

**Submit your manuscript here:** <https://athenaeumpub.com/submit-manuscript/>