



OPILATION AND MENSTRUAL SUPPRESSION: AN 18TH CENTURY MEDICAL PRESCRIPTION IN THE NEW KINGDOM OF GRANADA

Opilación y supresión de menstruos: una receta médica del siglo XVIII en el Nuevo Reino de Granada

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ABSTRACT

Objective: To present and define the context of a medical prescription dating from the eighteenth century in the New Kingdom of Granada, used for the suppression of menstruation, and to analyze it in the light of current knowledge as to whether its ingredients as a whole, may or may not achieve inhibition of menstrual bleeding.

Materials and methods: documentary search in the Historical Archives of the Octavio Arizmendi

Posada Library at Universidad de La Sabana where the prescription “Opilation and menstrual suppression” was found. A review of the literature available in SciELO/proQuest databases was subsequently conducted for the period 1993-2015.

Conclusions: The manuscript found describes multiple ingredients that, as a whole, and analyzed in light of current knowledge, are not valid to achieve the alleged suppressive effect. However, the components of the “liquid vitriol of Mars” could be recognized as having antianemic properties, and the potential suppressive effect of prescribing vigorous exercise in the middle of the menstrual cycle, although the recipe does not accurately describe the frequency or intensity of exercising to achieve the desired effect.

Key words: Suppression, menstruation, medical prescriptions, history, gynecology, 18th century history.

RESUMEN

Objetivo: presentar y definir el contexto de una receta médica que data del siglo XVIII en el Nuevo Reino de Granada, utilizada para la supresión de la menstruación, y analizar, a la luz de los conocimientos

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actuales, si sus ingredientes en conjunto podrían o no lograr la inhibición del sangrado menstrual.

Materiales y métodos: búsqueda documental en el Archivo Histórico de la Biblioteca Octavio Arizmendi Posada en la Universidad de La Sabana, donde se encuentra la receta “Opilación y supresión de menstros”, y, posteriormente, se realizó una revisión de la literatura disponible en las bases de datos SciELO/proQuest en el periodo 1993-2015.

Conclusiones: en la receta manuscrita hallada se describen múltiples ingredientes que, analizados a la luz de los conocimientos actuales, y en su conjunto, no tienen validez para lograr el pretendido efecto supresor. Sin embargo, se reconocen las propiedades antianémicas del “vitriolo líquido de Marte”, y el posible efecto que ejercería el ejercicio excesivo formulado en medio del ciclo menstrual, aunque en la receta no se describe con exactitud la frecuencia ni la intensidad con la que este debería ser realizado para lograr una supresión del menstros.

Palabras clave: supresión, menstruación, recetas médicas, historia, ginecología, historia del siglo XVIII.

*The farther back you can look, the farther forward
you are likely to see.*

Winston Churchill

INTRODUCTION

A collection of over one hundred medical prescriptions from the late Eighteenth Century can be found in the Historical Archives of the Octavio Arizmendi Posada Library, of the Universidad de La Sabana. These prescriptions were a donation from father Cipriano Rodríguez Santa María, the eponym of the institution's archives. This article discusses one of these prescriptions for the treatment of menstrual suppression, as a complement to the analysis of a historical and medical heritage, which is essential to the understanding of part of Colombia's therapeutic history.

The first gynecological writings date back to 1800 BC, and were found in the Lahun papyri,

discovered by Flinders Petrie (1853-1942). These papyri comprise several documents, including the Ebers papyrus, discovered in the worker's village of Lahun, Egypt. This document contains several gynecological observations, such as the treatment for uterine prolapse and of vaginal discharge or secretions (1).

Menstruation has always been a relevant topic since ancient times and was frequently associated with fears resulting from superstition around blood. The term menstruation comes from the Latin *menstruum*, which in turn comes from the Greek *mensis*, which means month - hence associating the event to its regular occurrence and with the influence of the moon on body fluids and humors. It is commonly believed that the idea of considering menstruation as deleterious, is a prehistoric concept of social groups of hunters, because of the risk of menstrual blood to attract animals and increase the risk of being attacked (1). Subsequently, Pliny the Elder (23-79 AD) spoke about the “impurity” of women with their menstrual cycle since it was thought that the proximity of a woman having her period spoiled the wine, made planting sterile, and withered the grass and the garden plants (2). According to the Persians (800 BC), any woman who delivered a baby, as well as any woman with her period, was “impure” and was isolated for four or more days in a room with dried straw and was kept fifteen steps away from fire and water, since these were clean elements. Around 600 BC in Greece, menstruation was considered a means of eliminating harmful substances from a woman's body. In Eastern India (Sixth Century BC), the Vedic rituals for purification of women with their period were very precise and said that the teeth had to be rubbed, they had to gargle a dozen times, and wash their hands and feet; then, plunge into the river twelve times and upon coming out, rubbing with mud containing fresh manure. Then, plunge into the water again for thirty-four times and repeat the mud friction. Then repeat the immersion twenty-four times, rub their body with saffron, and to fin-

ish, another twenty-four immersions. According to Hippocrates (460-370 BC), menstrual bleeding in women was the process for “discharging any superfluous female body fluids”, that were due to the fact that women were extremely hot and only in this way they were able to temper their body. In contrast, Galen (II Century AC) stated that menstrual blood was a female imperfection (cold and wet) because of a lack of the necessary heat, which caused abnormal food digestion and the role of bleeding was to eliminate any waste materials (3). Around 1520, Paracelsus (1493-1541) described the existence of a menstruation poison - “menotoxin” - an idea that prevailed until the 20th Century (4).

A physiological explanation to the menstruation phenomenon began to surface in 1834. Robert Lee associated it to the presence of the De Graaf follicle (5), a fact that was confirmed by E. Pluger & J. Beard in 1865. Subsequently, additional uterine functions were identified, but menstruation continued to be attributed to strange origins. By then, there were numerous medical and health papers that may be classified as medicine for the poor, which were based on the Salerno School in the 17th Century, with the *Regimen Sanitatis Salernitanum* as its greatest exponent (6). It was not until the 20th Century when the mystery of the origins of menstruation or period began to be unraveled. According to V. C. Medvei in his book *A History of Endocrinology* (1908), two physicians from the University of Vienna, Fritz Hitschamann (1870-1926) and Ludwig Adler (1876-1958) submitted an elegant study that led to the understanding of the origin and the role of menstruation (7).

Consequently, it was understandable that women in the 17th Century were in a constant quest for methods to control or stop menstruation. Although there is a big gap of information on the topic, this article describes a prescription which is believed to be used for menstrual suppression.

Following is a transcript of the source document.

Opilation and menstrual suppression

1- According to Luque, the administration of water with vitriol of Mars certainly cures these ailments. Liquid vitriol is prepared as follows:

Take an ounce of steel filings (I have used iron), pour onto three quarts of strong vinegar and place on hot ashes or under the sun. When the vinegar is sweet, add two Drachmas of vitriolated tartar. Every morning for nine days, stir the preparation for fifteen minutes and filter to use.

2- I take a serving of that liqueur, pouring a pound of twenty and four of fresh water - more of less abundant - based on the patient's physical condition. Just swallow the preparation, and with no further precaution, health is restored within a few days, particularly when combined with morning and afternoon exercise.

To cure old opilations and long-standing suppressions, refer to the case of hypochondria: I hereby warrant that the professor who timely begs for this care shall not be disappointed (figure 1).

The relevance of this article is that it reveals the foundations that have led to the understanding of the medicines used throughout the history of obstetrics and gynecology. The purpose of this manuscript is then to put into context the formulation of a medical prescription used for menstrual suppression in the 18th Century in the New Kingdom of Granada, and to analyze, in light of current knowledge, whether the ingredients in such prescription as a whole, were or not able to inhibit menstrual bleeding.

MATERIALS AND METHODS

A documentary search was conducted in the Historical Archives of the Octavio Arizmendi Posada Library at the Universidad de La Sabana, where the prescription “Opilation and menstrual suppression” was found. An additional review of the available literature was conducted in SciELO/

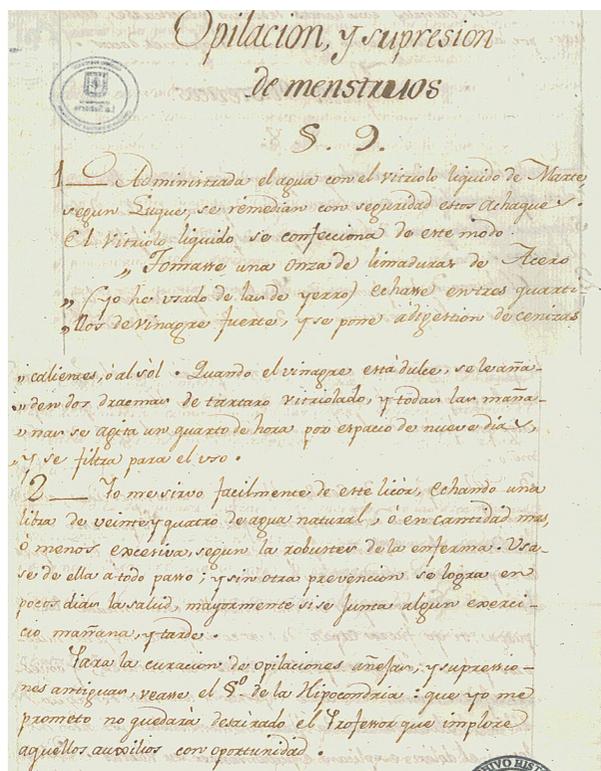


Figure 1. Prescription for opilation and menstrual suppression

Source: Cipriano Rodríguez Santamaría Historical Archives. Octavio Arizmendi Posada Library. Chía: Universidad de La Sabana.

proQuest databases, from 1993 through 2015, using the following search terms: “liquid vitriole of Mars”, “polychrest of Glaser salt”, “steel filings”, “drachma”, “scruples”, “Vitriolated tartar”, “menses”, “exercise”, “amenorrhea”.

Analysis of the source documents. Around 1763 a public pharmacy was inaugurated in Santafé, the capital city of New Granada, managed by the Dominican priests and operated by Juan José Mange. It was located on the lower level of the Colegio Mayor de Nuestra Señora del Rosario, and tartar was already an important product, since by that time the idea of using natural agents for health purposes became relevant and led to the identification of new uses and properties of plant products (8).

The use of materials sourced from the mineral kingdom for healthcare purposes has been practiced

since ancient times. In this prescription, by mixing one part of iron filings with twelve parts of vinegar, an ancient medicine was obtained that the old-time practitioners called “liquid vitriole of Mars”, also known as liquid iron acetate or Cappuccino vinegar, which was used for the treatment of chlorosis (from the Greek $\chi\lambda\omega\rho\sigma\varsigma$, *chlōros*, green), the name given to a special type of anemia, because of the yellowish-green color of the patient’s skin (9, 10). Hence, the liquid Vitriol of Mars was indeed ferrous sulfate. In the 19th Century, metallic iron was used, usually in the form of filings. The iron salts precipitate proteins and hence have astringent and irritating properties. Moreover, actually it is well known that iron in water solutions may be found in two states of oxidation: ferrous (Fe^{2+}) and ferric (Fe^{3+}) (11); this characteristic makes it amenable to participate in most of the biochemical reactions. However, these properties are not expressed in solid state, since it is impossible for the body to absorb the metal in such solid state.

The presence of iron in blood was established by Domenico Gusmano Maria Galeazzi (1686-1775), who heated the blood until ashes were produced and showed that the waste material could be attracted to a magnet (12). It might be possible that being aware of this fact, the material was used as a tonic medication after menstrual bleeding, due to its antianemic properties.

The second ingredient listed in this prescription, vitriolated tartar, is a combination of sulfuric acid and potassium described in Ramón Capdevila’s paper as polychrest Glaser salt, with its properties and dosing. The belief was that the administration of a dose of two to three Drachmas (weight measure used in the pharmacy, equivalent to one eighth of an ounce) would have a laxative effect, and dosed in one or two scruples acts a diuretic or diaphoretic drink (13-15).

With regards to exercise as recommended in this prescription, it is common knowledge that low energy availability because of excessive energy

consumption leads to an increased secretion of Adrenocorticotrophic hormone (ACTH) which is associated with a loss in the pulsatile release of GnRH and leads to a decline in the peaks of luteinizing hormone (LH), which in turn hinders normal follicular development, lowers the concentration of serum estradiol, lack of ovulation (16), and consequently, amenorrhea. However, this prescription fails to specifically establish the intensity of exercise to get the desired effect.

CONCLUSION

Following the analysis of the ingredients in the above prescription, in light of current knowledge, it can then be concluded that this medical prescription has no validity for menstrual suppression. However, liquid vitriole of Mars is associated with ferrous sulfate, one of the many forms of iron supplementation currently available; thus, this prescription may have somehow helped to compensate for the low levels of hemoglobin following menstrual bleeding. Moreover, overexertion may lead to secondary amenorrhea, so the conclusion could be that the most appropriate ingredient in this colonial recipe to modulate the menstrual cycle was exercise, though the level or frequency to achieve the desired effect are not specified.

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