

HISTORY OF ONCOLOGY

Louis-Joseph-Marie Robert (1771-1850) and his method for the prevention of breast cancer

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Summary

In 19th century breast cancer was still an incurable disease. The treatment was consisting of surgical excision of the tumour, cauterization and topical application of caustic substances such as arsenic and caustic potash without promising results. The French physician Louis Robert (1771-1850) adopted the leech method of François-Joseph-Victor Broussais (1772-1838) and proposed, for the first time, a method

to prevent breast cancer. Despite the supposed success of his approach, the introduction of the notion of prevention and the ways to achieve it, it is meticulously analyzed in his work.

Key words: Robert, leeches, breast cancer, prevention, history of oncology

Introduction

In 5th century BC Hippocrates (460-377 BC) observed that women who had a melancholic character and were suffering from uterine diseases were more likely to develop cancer. He sustained this hypothesis to the humoral theory and especially to the predominance of black bile in association with menstrual disorders [1]. Hippocrates' theory on women cancer was adopted by physicians of antiquity such as Galen (c. 130-201) and Aretaeus of Cappadocia (ca 2nd century AD); medieval physicians such as Guy de Chauliac (1300-1368) and the Renaissance surgeon Ambroise Paré (1510-1590) prevailing till the end of the 18th century [2].

In 19th century the advent of pathology and its connection with clinical semiology provided a new concept to the pathogenesis of diseases, including cancer. In that period physicians observed

that breasts were linked to the uterus, in physiological and pathological terms, underlying their strong connection to the etiology of female cancer. Concerning breast cancer, they believed that its appearance was triggered by either a blow or a breast engorgement due to an increased amount of breast milk either to a hemorrhoidal or menstrual suppuration. In that theory, the main cause was an irritation of the human body stimulated by an acute or chronic inflammation [3]. Therapeutically, the treatment was consisting by surgical excision of the tumour, cauterization and topical application of caustic substances such as arsenic, corrosive sublimate and caustic potash without promising results [4]. Facing a rather incurable disease, the French physician Louis-Joseph-Marie Robert (1771-1850) pointed out, first, the importance of breast cancer prevention.

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Louis Robert's life and work

Originated from a prominent family, Robert was born in April 21st 1771 in Sainte-Tulle commune, located in Alpes-de-Haute-Provence department, in France. His father, Jean-Baptiste (1730-1805), was royal notary and mayor of Sainte-Tulle and his mother, Marie-Thérèse Nance (1739-1825) was the daughter of the consul of Reillanne and founder of the congregation of penitent sisters of Sainte-Tulle [5], [6], [7].

Louis Robert completed his studies at the Faculty of Medicine in Paris and in 1803 presented his inaugural dissertation entitled: "Is there a physico-medical art, to increase the intelligence of man, by perfecting his organs, or is megalanthropogenesis a mistake?" (*Existe-t-il un art physico-médical, pour augmenter l'intelligence de l'homme, en perfectionnant ses organes, ou la mégalanthropogénésie n'est-elle qu'une erreur ?*). His dissertation was actually a more developed idea of his best-seller book published two years ago, in 1801, on megalanthropogenesis entitled: "Essay on megalanthropogenesis or the art of making bright children who become great men" (*Essai sur la mégalanthropogénésie ou l'art de faire des enfants d'esprit qui deviennent de grands hommes*) [5], [6], [8] (Figure 1). In his work, he tried to combine conjugal medical hygienic principles with post-Revolutionary ideas for the creation of the ideal man. Robert is considered to be one of the first eugenicists in France and his work on megalanthropogenesis received a lot of criticism [9]. It is worth mentioning that short after megalanthropogenesis publication, F. Fuchier, student at the law faculty in Paris wrote the comedy "Le Mégalanthrope", staged at Montansier Theater, ridiculing the ideas of Robert [10].

After this short publishing success, Robert followed a career in Marseille as professor of naval hygiene, member of the Academy of Sciences, Letters and Arts of Marseille (chair 27), and physician of the Lazaret. Furthermore, he was corresponding member of the academies of Paris, Lyon, Stockholm and physician of the Princess Pauline Bonaparte (1780-1825), of the king of Spain Charles IV (1748-1819) and of the Queen consort of Sweden Désirée (1777-1860). During his career, Robert received several honorable distinctions such as the Royal Order of the Polar Star and the Royal and Distinguished Spanish Order of Charles III [6].

Known to the general public for his work on megalanthropogenesis, Robert published on various topics: on the influence of music in health (*De l'influence de la musique sur les mœurs, les passions et la santé*, 1807), on the medical and chemi-

cal properties of the Gréoulx mineral water (*Histoire médicale et chimique des eaux minérales de Gréoulx*, 1810), on infectious diseases (cholera, smallpox, yellow fever), on the history of the Lazaret of Marseille, on the history of the patroness of his native place Sainte-Tulle (*Histoire de Sainte-Tulle patronne de la commune qui porte ce nom*, 1843) and others [5].

On January 1849, Robert married his 35 years younger Augustine Reyre and adopted her son Augustin-Louis. He died one year later, at 79 years old, in February 23, 1850 in Sainte-Tulle [5], [6].

Robert's method on breast cancer prevention

In 1812, Robert published a book on breast cancer prevention (*L'art de prévenir le cancer du sein*) re-introducing an old concept, that preven-

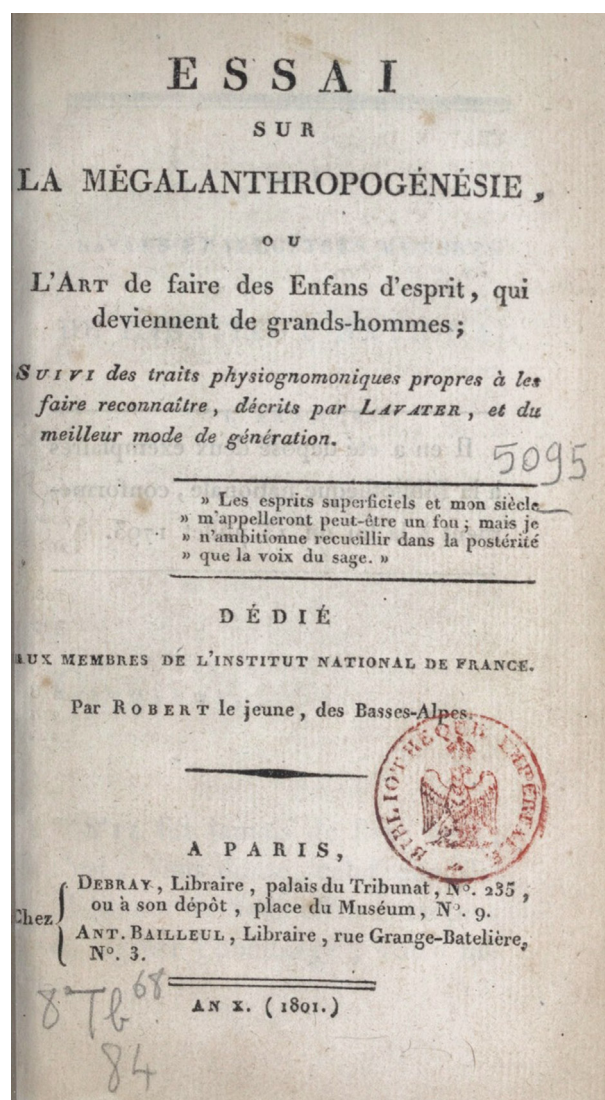


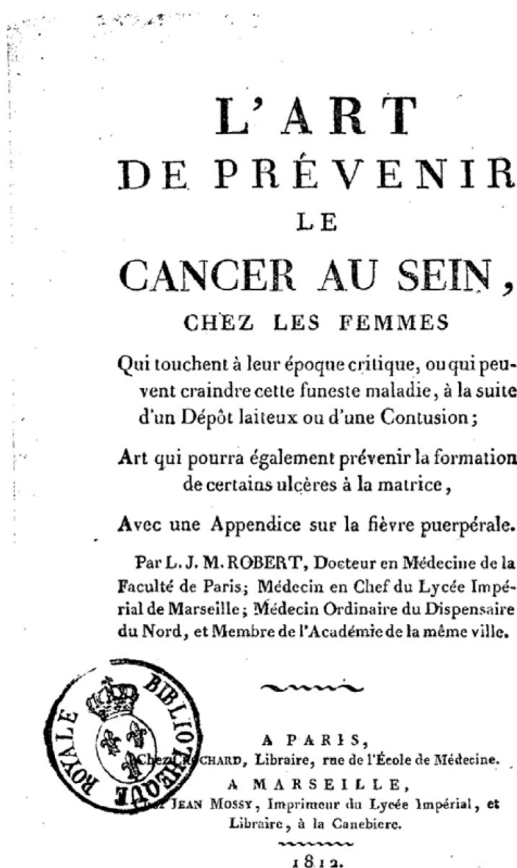
Figure 1. Robert's best seller book on megalanthropogenesis.

tion is better than cure (Figure 2). In his work, he develops his own concept on cancer pathogenesis and the method of prevention based on cancer etiology. He mentions that breast cancer is developed due to an inflammation provoked or from local trauma either from suppuration of internal genitalia, just like his contemporary distinguished physician François-Joseph-Victor Broussais (1772-1838). Broussais in his famous doctrine of irritation was stating that for the development of inflammation an external and internal stimulus is needed [12], [13]. Robert believed that the irritated blood and lymphatic vessels provoked the appearance of pain which is aggravating, as long as the irritation continues, contributing to inflammation and cancer appearance. He, thus, provides a mechanical pathogenesis of breast cancer based on pain which could be at the origin of cancer formation; so, any remedy capable of alleviating pain is

considered specific against cancer, in accordance to the Hippocratic dictum: “divine is the work to subdue pain” [11].

Robert enumerates the available, specific and general treatment options, including vegetable diet, laxatives, and appetizers that they target to decrease inflammation but he admits the increased rate of treatment failure. Furthermore, he points out that the promise of physicians to cure cancer, could be undoubtedly illusory and chimerical, while the key of treatment is the prevention based on bloodletting leeches [11]. Bloodletting, usually by phlebotomy, was considered, since antiquity, as a method for restoring humoral balance and it was proposed by medical authorities such as Hippocrates and Galen. The method survived throughout centuries and became very popular in 19th century thanks to Broussais who introduced medical leeching instead of venesection [14], [15]. Robert adopts the leeching method of Broussais, as a cornerstone in his prevention treatment against breast cancer. In his book we may find several patients’ cases who received, with a successful outcome, leeches and specific diet (the well-known antiphlogistic method of Broussais for the diseases, including cancer) in order to prevent breast cancer [11].

It is noteworthy one case as example: “On March 1809, we examined Mme Chr. wife of Mr. aged 36 years old, of a dry and bilious temperament, from Marseille, mother of two children, who breastfeed them. She observed, since 18 months ago, a painful tumoural mass at the right breast; at a chicken egg size. She attributed its appearance at an accidental elbow blow she received during a ball. As pain and engorgement were progressing, she consulted several physicians who believed that she was suffering either from humoral imbalance either from syphilis and prescribed tonics and mercury. After eight months, she consulted us (Robert) and we immediately recognized the cancerous “diathesis” of her symptoms. At the beginning she was advised to follow, for eight days, a vegetable diet and to take a calming pill every night. We also tried to inspire her confidence in order to chase away the melancholy that tormented her. The ninth day, we performed a bloodletting at her arm and six hours later the pain was alleviated but the tumor was still present. Five days later, we applied six leeches on her breast at the tumour site. Blood evacuation was abundant, and the next day apart a slight sign of tenderness, the patient was feeling well. In the following days, the tumour decreased in volume and we ordered a new leeches’ session. After forty five days, the tumour disappeared and we had the satisfaction for



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Figure 2. Frontispiece of Robert’s manuscript on the prevention of breast cancer.

bringing to a perfect resolution a tumour which every day was becoming very painful and with the proposed irritant treatment from the previous physicians could be transformed to cancer. Mme Chr ... continues today, in May 17 1811 to be well and free of her illness. One of the physicians that initially, unsuccessfully, treated her witnessed her healing and paid a tribute to our method" [11].

Conclusion

Following the ideas of Broussais, Robert proposed medical leeches and vegetable diet as breast cancer prevention. Analyzing, with our current medical knowledge, the case of Mme Chr., we

could realize that probably she was not suffering from a cancerous tumour, even if today leeches' application for the symptomatic relief of cancer pain as well as an antimetastatic agent is proposed by several authors [16]. The real message of Robert's cases is the idea of prevention in a time period that all physicians were attempting to treat cancer. Today, two centuries after Robert's method, prevention is the cornerstone of breast cancer control focusing on healthier lifestyle, early detection, preventive medicine and genetic research.

Conflict of interests

The authors declare no conflict of interests.

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