

# Contribution of Two Women Travelers to the History of Smallpox Vaccination

## İKİ KADIN GEZGİNİN ÇİÇEK AŞISI TARİHİNE KATKISI

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### Summary

Women travelers during the 18<sup>th</sup> and 19<sup>th</sup> centuries were a rare phenomenon, explained by social, economical and educational reasons. Two of them, having the double role of a traveler and a mother, described their experiences in Turkey and Greece respectively, including the experimental or the official vaccination for their own children.

The first writer. Lady Mary Wortley Montagu, wife of the British ambassador to the Sublime Porte, as the Ottoman government was called, traveled to Istanbul in 1716. She was herself a victim of smallpox and had a great interest about the disease. In her series of letters under the title "Travels in Europe, Asia and Africa", she gave a plain account of the inoculating of the smallpox by a Turkish merchant, supporting the effectiveness and the value of the vaccination. She is remembered for introducing inoculation against smallpox into England, performing this experimental method at her own children, first at her son in Istanbul and then at her daughter in London with eyewitnesses the members of the Royal Family

The second writer. Christianne Lüth from Denmark, wife of the personal priest of the first Queen of Greece, Amalia, followed her husband in Athens, shortly after the establishment of the Neohellenic Nation. She kept a diary of all these years (1839-1852) and wrote letters and travel impressions from every visited place, describing the events occurring in her environment, like the vaccination of her children by the physician of the Royal Court in 1842, after a smallpox epidemic.

Conclusion: non-medical sources often provide precious details about the history, invention and apply of vaccinations giving another aspect of the human dimensions.

**Key Words:** Smallpox vaccination, Women travelers, Invention

T Klin J Med Ethics, Law and History 2003, 11:4-7

### Özet

18. ve 19. yüzyıllarda kadın gezginler sosyal, ekonomik ve eğitimle açıklanabilen nedenlerle nadir görülen olgulardı. Bunlardan gezgin ve anne rolüne sahip olan ikisi sırasıyla Türkiye ve Yunanistan'da, kendi çocukları üzerinde deneysel ya da resmi olarak uygulanan aşılamaı içeren deneyimlerini anlattılar.

Birinci yazar: Osmanlı Hükümetinde İngiliz büyükelçisinin eşi Lady Mary Wortley Montagu İstanbul'a 1716 yılında geldi. Kendisi çiçek hastalığının kurbanıydı ve bu hastalığa büyük ilgi duymaktaydı. "Avrupa, Asya ve Afrika Seyahatleri" başlığı altında yazdığı bir seri mektubunda aşının yarar ve değerini destekleyen Türk tüccarları aracılığıyla çiçek aşısının açıkça görülen değerine eğildi. Lady Montagu, bu deneysel yöntemi kendi çocukları üzerinde ilk kez İstanbul'da oğlunda, daha sonra Londra'da Kraliyet Ailesinin gözü önünde kızına uygulayarak İngiltere'ye çiçeğe karşı aşılamaı sokan kişi olarak hatırlanır.

İkinci yazar: İlk Yunanistan Kraliçesi Amalia'nın özel rahibinin eşi Danimarkalı Christianne Lüth, Neohellenik Ulus'un kurulmasının hemen sonra eşinin ardından Atina'ya gitti. Tüm bu yıllar boyunca (1839-1852) günlük tuttu, mektuplar yazdı ve her gittiği yerdeki gezi izlenimlerini, çiçek salgını sonrası, 1842'de Kraliyet Mahkemesi Hekiminin çocuklarına yaptığı aşılama gibi çevresinde olan olayları anlattı.

Sonuç: Çoğunlukla tıp dışı kaynaklar tarih hakkında bulunmaz detaylar saptar, buluşlar ve aşılamanın uygulanması insanlık boyutuna ayrı bir yön verir.

**Anahtar Kelimeler:** Çiçek aşısı, Kadın gezginler, Buluşlar

T Klin Tıp Etiği-Hukuku-Tarihi 2003, 11:4-7

Homer's greatest hero, Odysseus, gained wisdom and experience from his enforced by gods wanderings. Herodotus qualified as the father of travel literature, as well as of History. In the 18<sup>th</sup> century, the great age of travel, of the personal

investigation and verification of the facts, almost every important English or French writer did something in the way of travel writing. Travel books were tremendously popular.

Women travelers were a rather unusual phe-

nomenon during the 19<sup>th</sup> century and a rarity during the 18<sup>th</sup>. The wealthy and educated female population was especially discouraged from visiting countries like Greece and Turkey, unwilling to face the difficulties, the dangers and the discomfort of the Orient. Most of the women who arrived there, in those legendary times, accompanied their husbands in diplomatic or scholarly missions and only a minority among them represented an adventurous temperament. The most famous of those pioneers added their intellectual results in literature, like collections of letters, diaries and other travel-memoirs genres (1).

The two ladies presented in this paper, having the double role of traveler and mother, described their experiences in Turkey and Greece respectively, as the circumstances led the first, the English Lady Mary Wortley Montagu to Istanbul from 1717 until 1718 and the second, the Danish Christianne Lüth to Athens from 1839 until 1852.

### **Lady Mary Wortley Montagu (1689-1762) and Variolation in the 18<sup>th</sup> Century**

She was the daughter of Evelyn Pierrepont, marquis of Dorchester but lost her mother at the age of 4. Her brother William died of smallpox, while she herself survived, having the permanent scars of the disease on her face. In 1716 she traveled overland to Istanbul with her husband who had been appointed ambassador to the Sublime Porte, as the Ottoman government was called (2).

Her collection of letters entitled "Letters during Mr Wortley's Embassy in Istanbul" appeared in 1763. She is considered the most notable Levantine traveler in the 18<sup>th</sup> century and remembered as for introducing inoculation against smallpox into England. Smallpox in 16<sup>th</sup>, 17<sup>th</sup> and 18<sup>th</sup> centuries began to kill European children in higher percentages than before and remained one of the commonest causes of death in childhood. Curing the disease was impossible. But in some parts of Asia people had for a long time practiced a primitive sort of vaccination called variolation (3).

Two Greek researchers offered theoretical support to variolation publishing their scientific

treatises in the Journal of the Royal Society "Philosophical Transactions" in the same volume (29; 1714-6) (4). Emmanuel Timonis from the island of Chios and Jacobus Pylarinus from the island of Cephalonia described their experience on variolation-having practiced it since the great epidemic of Istanbul in 1701-but the new method had to face the suspicion of both, people and physicians (5,6).

Lady Montagu was one of the West European personalities who paid attention to variolation and, as she herself had been a victim of smallpox, was very sensitive to whatever could be used as a preventive measure. In 1718, during her stay in Istanbul, had her son variolated and three years later, in 1721, after her return to London, she repeated the method to her 3 years old daughter, having as eyewitnesses the members of the Royal Family. A severe epidemic of smallpox in London the same year made them decide to follow this method of protection. Theological objections, supporting the acceptance of diseases and avoidance of interventions in God's will, were broadly discussed.

In 1723 Lady Montagu published an anonymous treatise entitled "A plain account of the inoculating of the smallpox by a Turkish merchant" describing her experiences. Variolation was first tried out on a large scale during a smallpox epidemic in Boston in 1721, by Zabdiel Boylston. In his published work he made a special mention to the Greek pioneers Timonis and Pylarinus because his experience was based on their observations. George Washington, having on his face the disfigurement of smallpox, had his soldiers variolated for fear that his army might be decimated by an encounter with the disease (3).

The original text of Lady Montagu about her impressions from variolation is included in her letter written in Edirne in 1.4.1717 and addressed to Lady S.K. The method was applied on an annual basis. The pus from the pocks of active cases was scratched into the skin of the healthy persons. The great majority of those who got the disease artificially recovered and became immune for their whole life, while the pustules never left scars after

the recovery. Having decided to apply the method “on her beloved little son”, she expressed the hope that the scientists of her country would adopt it.

The most famous of her supporters, the main representative of the movement of the Enlightenment, Voltaire, underlined the attitude of an intellectual and philosophical system on a practical matter. In his 11<sup>th</sup> letter from the collection “*Lettres philosophiques*” approved Lady Montagu’s decision to variolate her own son and Queen Caroline’s one for her children. Voltaire had known personally Lady Montagu during his stay in England in 1727 and it seems that her personality impressed him so much that he wished France to have an ambassador’s wife who would import inoculation into his country. If this had already happened, they would not have mourned 10.000 victims in Paris smallpox epidemic in 1723 (7).

The true importance of variolation is not the number of persons it saved in the 18<sup>th</sup> century but the fact that it prepared the scientific and public minds for vaccination.

### **Christianne Lüth (1817-1900) and Vaccination in the 19<sup>th</sup> Century**

Toward the end of the 18<sup>th</sup> century Edward Jenner, an English physician noticed that variolation did not cause smallpox in some of his patients. These were individuals who had already had a mild disease. He inoculated people, including his son, who had never had smallpox, with cowpox matter and found that they were immune to smallpox. The technique was the same as variolation, but the matter transferred came from a different source, so he called it “vaccination” derived from the Latin word for cow (*vacca*). In 1798 Jenner presented to the world the results of his discovery, in a treatise entitled “*An inquiry into the causes and effects of the variolae vaccinae*”, one of the most important ever made in the field of medicine. By 1801 more than 100.000 had been vaccinated in England. The practice of vaccination was carried to the other European countries and across the Atlantic to North and South America (3).

Greece remained under the Ottoman dominion until 1830. Although variolation was per-

formed in Istanbul since 1701, there was a delay in vaccination. Jean de Carro vaccinated the son of Lord Elgin, ambassador of England at the Sublime Porte and some other persons in 1800. Doctor Scott, the physician of the English embassy, coming in Athens with Lord Elgin in the summer of 1802, vaccinated the first people, becoming the introducer of the method in Greece. In this activity, Dr Scott was helped by the Greek physician Spyridon Katsaitis. There are no further information about this period.

Greek people seemed very reluctant in vaccination, so it was not strange to see great epidemics, as in Corfu island in 1852 with 760 victims. After the formation of the New Nation of Greece and the determination of Athens as the capital, King Otto I of Bavarian origin brought with him a great number of physicians. Public health measures were taken emphasizing on vaccination (10) and services for topical application of the method were organized. The Orthodox Church played a positive role supporting all the efforts of the State. As vaccination became the official strategy against smallpox, the Greek clergy developed a parallel activity.

Some precious information about vaccination in Athens offers the diary of a woman traveler from Denmark (8). Christianne Lüth accompanied her husband, personal priest of the first Queen of Greece, Amalia, and lived in Athens from 1839 until 1852 (9). She was born in North Sjaelland and married at the age of 21 to the German theologian and doctor of Philosophy Asmus Heinrich Friedrich Lüth from Holstein. One year after their marriage they left Germany and arrived in a new capital of a new nation.

During her stay in Athens she kept diary, describing the everyday events, because the way of life she was accustomed, until she left her native country, was very different. Christianne Lüth learnt the Greek language and traveled many times to the mainland and the islands of Greece. Her four children were born at home, Damaris in 1839, Nicolas in 1841, Jutta in 1843 (died next year), and Dionysius in 1848 (died the same year). The two children who died were buried in Athens.

The Lüth family lived in the environment of the Royal Court, as the father followed always the Queen. The medical care of all was taken by the physicians of the King, who were also the first professors of the new-established School of Medicine in Athens University, most of them of Bavarian origin.

A great number of pages in Christianne's diary are devoted to her children, their diet and growth, their education and entertainment, their diseases and especially their vaccination. In a historical era without any similar evidence-educated mothers were rather unusual in Athens in the decade 1840-1850- the texts of this diary includes precious information.

In 1842 a smallpox epidemic in Athens forced the Royal physicians to vaccinate every person in the Court and their families. Professor Röser vaccinated the Queen who hesitated, wondering if the method was painful and decided to undergo "this annoyance" after having watched how vaccination was applied on Nicolas, the 1 year old boy of Christianne. All the ladies of the Royal Court were afraid of the needles and delayed the vaccination, making Dr Röser very angry. On the contrary the children accepted the vaccination and found it "amusing". Even the 9 years old little maid of Christianne was vaccinated.

She also described the side effects: Nicolas had high fever, topical pain and redness. She was very anxious but soon all these symptoms disappeared. Even the rush of a neighbor's child did not last for long. Having this experience, she was more prepared for her second son's vaccination, performed by Dr Alberti, a specialist in smallpox. This happened 6 years later, in 1848, when the boy was about 6 months old. The famous physician visited the baby at home and came once more for the side effects, finding him in a very good health. Although the baby was crying and remained very anxious for two nights, the symptoms soon disappeared. Christianne was a brave mother and she added that all her children were brave too and did not show any fear at the view of doctors or cried before vaccination.

## Comments-Conclusions

Obtaining this unbelievable achievement in a fatal disease's confrontation, means that many people offered their individual contribution. The two women travelers of this paper had immediately understood the significance of their contemporary inventions in disease's prevention. They were also brave enough to apply them on their own children, while other mothers expressed their fears for something new, unknown and experimental. These efforts, two centuries later, brought the final victory. The Global Commission for the Eradication of smallpox, in 1979, announced the complete eradication of the disease-one of the greatest triumphs of scientific knowledge and public health practice in history.

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**Geliş Tarihi:** 07.10.2002

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