

Hydrocephalus of King Charles II of Spain, the Bewitched King

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Abstract

King of the Spanish Habsburg dynasty and sovereign of the overseas Spanish Empire, Charles II of Spain, was physically disabled, disfigured, mentally retarded, and he proved impotent. He is known in history as *El Hechizado* (*the Bewitched*) because both him and the people believed that his mental and physical incapacity were due to a “witchcraft act.” Although several authors speculated about different diseases, most of them genetic such as pituitary hormone deficiency, distal renal tubular acidosis, Klinefelter syndrome, fragile X syndrome, or male XX hermaphroditism, the hypothesis of hydrocephalus was not taken into account. We don't have clear elements to hypothesize a certain etiology of Charles II' hydrocephalus; however, we think the herpetic infection he suffered of after his birth should not be ignored.

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Charles II of Spain, Carlos Segundo (1661–1700; Fig. 1) was the last king of the Spanish Habsburg dynasty and sovereign of the overseas Spanish Empire, from Mexico up to Philippine. Charles was the only surviving son of his predecessor, Philip IV and his second wife, Mariana of Austria. His birth was awaited with enthusiasm by the Spanish people, who were afraid of the conflict that would have broken out if Philip IV had died without any male heirs.

La Gaceta de Madrid spread the word of his birth, describing the crown prince as “a robust man, very handsome...a proportionate head, black hair...”. Interestingly, not long after, a report sent to the French King Louis XIV described a totally different situation: “the prince seems extremely weak, he has a herpetic on both cheeks. The head is covered with scabs, a kind of channel or drainage that oozes underneath the right ear [1, 2].

The king was physically disabled, disfigured, mentally retarded, and he proved impotent, since no children were born from his 2 marriages [3]. Furthermore, throughout

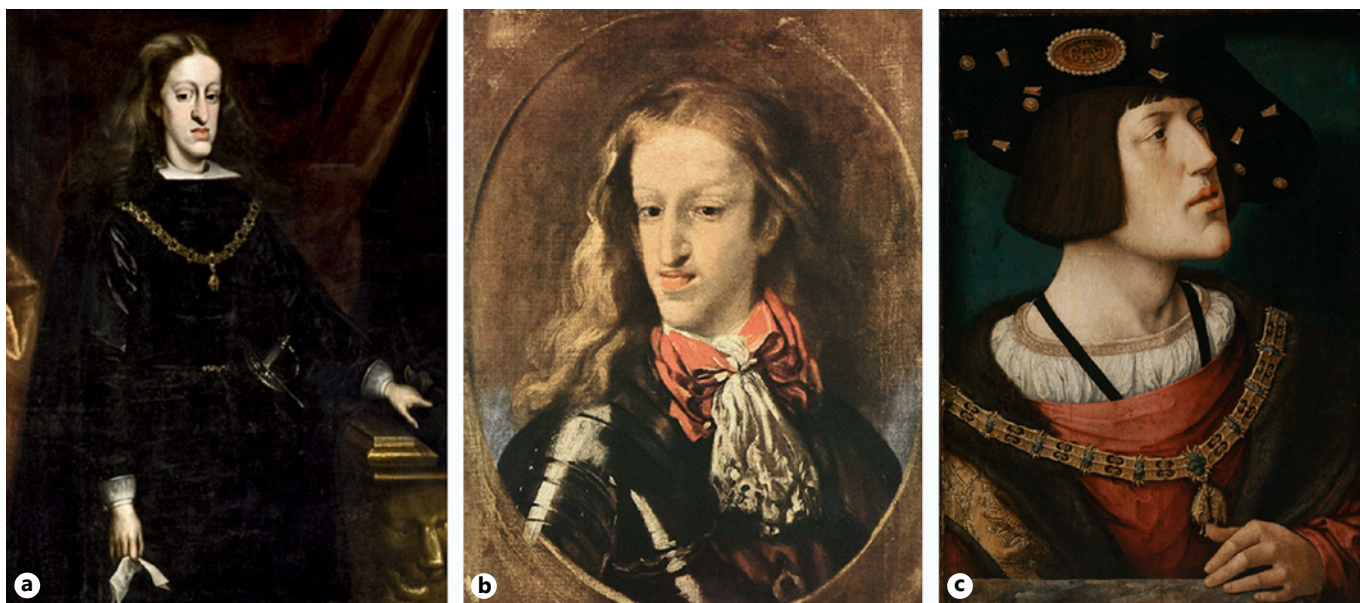


Fig. 1. *Charles II of Spain*, Juan Carreño de Miranda (circa 1685), Museum of Art History, Vienna (a). *King Charles II*, Claudio Coello (1675–1680), The Prado Museum, Madrid (b). *Portrait of Charles V*, Bernard van Orley (circa 1515–1516), Museum of Fine Arts, Budapest (c) (public domain).

his life, he has been suffering from a number of different diseases [4–6], and he did not speak until the age of 4 or walk until the age of 8–10 [1, 7]. Aged 6–10 years, he had measles, varicella, rubella, and smallpox [2]. He was treated like a baby until the age of 10 and fearing that this fragile child shall be overworked, he was left completely uneducated [7]. Due to his incapacity, the years of the reign of Charles II were years of agony for Spain; his mother was regent most of his reign.

As mentioned above, the king was not only mentally retarded but also physically disabled and disfigured by a mandibular prognathism, condition inherited from the Habsburg family (an extreme example of the so-called *Habsburg jaw*), which had been noticed in his forefather, Charles V, who had the same prominent jaw (Fig. 1). The mandible of Charles II was so badly deformed that he could barely speak or chew, and thus he had to swallow his food almost entirely, which often caused him indigestions and vomiting (Fig. 1) [8].

He is known in history as *El Hechizado* (*the Bewitched*). Both him and the people he ruled believed that his mental and physical incapacity were due to a “witchcraft act” [7]. Nevertheless, further researches showed that the strong preference for endogamy within the Spanish branch of the Habsburg royal family led to its segregation toward the neighbor communities and the emergence of consanguinity [3, 9].

From the earliest years of life, Charles II was exorcised in the attempt to heal him, and all the exorcists from the kingdom were summoned in order to question the demons they used to expel [7]. In addition, St. Isidore’s and St. Iago’s relics were brought in the royal palace, where they have remained for 6 months, in the hope that the King should be healed [10]. He partially recovered from this disease, yet he remained in a state of mental imbecility [10], melancholy, and lethargy until the end of his life [7]: “his mind, too, was a constant prey to a corroding melancholy, which appears to have been in a great measure produced by the most ignoble and womanish /superstitions” [10].

Moreover, he suffered from increasing seizures in the last years of his life [2, 3]. The American historians Will and Ariel Durant described Charles II as “short, lame, epileptic, senile, and completely bald before 35, he was always on the verge of death, but repeatedly baffled Christendom by continuing to live” [11]. Toward the end of his life, the frail health of Charles started deteriorating even more, leading to his death at the age of 38, in Madrid.

As for the disease of Charles II, it had yet to be figured out. Still, several authors speculated about different diseases, most of them, genetic, such as: pituitary hormone deficiency and distal renal tubular acidosis [3], Klinefelter syndrome [4], fragile X syndrome [12], or male XX hermaphroditism associated with a fragile X syndrome [1].

Whatever his underlying disease, we suggest that Charles' symptoms and signs, such as macrocephaly, late growth, and mental development, as well as the frequent episodes of vomiting and epileptic crisis from his childhood were related to hydrocephalus.

Our hypothesis is corroborated by the post-mortem examination, which concluded that the emperor's corpse "did not contain a single drop of blood; his heart was the size of peppercorn; his lungs corroded; his intestines rotten and gangrenous; he had a single testicle, black as coal, and his head was full of water" [4]. The necropsy noticed that the ventricles of the brain were filled with cerebro-

spinal fluid, as in hydrocephalus [4, 13]. We don't have clear elements to hypothesize a certain etiology of Charles II' hydrocephalus; however, we think the herpetic infection he suffered of after his birth, should not be ignored, even more as herpetic infections can cause hydrocephalus [14, 15].

Disclosure Statement

The authors have no conflict or interests. The authors are not having any financial interest.

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