

Cerebrovascular disease in Dumas' *The Count of Monte Cristo*

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Alexandre Dumas' famous novel *The Count of Monte Cristo* (1844-1845) tells of the unjust imprisonment of Edmond Dantès, his escape and revenge. An incidental feature of this novel is the description of two cases of cerebrovascular disease, with expression of contemporary opinion on pathology and treatment. Earlier readers of the work in English may have missed this since most versions are based on an 1846 translation that has substantial omissions. A retranslation of the unexpurgated text provides access to the original novel in English.¹ This gripping tale includes drug-taking, a serial female poisoner, lesbianism and two cases of infanticide. (The quotations in this paper refer to this translation by Buss, as do the page numbers.) It is far from the children's novel that most people perceive it to be.

CASE ONE: ABBÉ FARIA

Abbé Faria is an elderly Italian priest with Bonapartist and Pan-Italian sympathies who was incarcerated at the Château d'If four years before Dantès. The prison guards feel that Faria is mad because he has offered them part of a great treasure, which they do not believe exists, if he is released. Faria becomes Dantès' teacher, having inadvertently tunnelled into Dantès' cell (Figure 1).

Fifteen months after their first acquaintance, Faria suddenly becomes unwell. Dantès is warned by Faria what to expect and what he must do with some medicine that Faria has kept for the purpose:

'This is what will happen. I shall fall into a cataleptic fit. I may perhaps remain motionless and not make a sound. But I might also froth at the mouth, stiffen and cry out. . . . When you see me motionless, cold and as it were, dead—and only at that moment you understand—force my teeth apart with the knife and pour eight to ten drops of the liquid into my mouth. In that case, I may revive.' (p. 148)

Faria regains consciousness but has a right hemiplegia, describing himself as being 'half a corpse'. This is Faria's



Figure 1 **Abbé Faria teaching Edmond Dantès.** (From an early edition of *The Count of Monte Cristo*)

second attack, the first having been more than ten years previously:

'Last time the fit lasted half an hour, and after it I felt hungry and got up myself. Today, I cannot move my right leg or my right arm. My head is muddled, which proves there is some effusion on the brain. The third time, I shall remain entirely paralysed or shall die at once. . . . It is a hereditary illness. My father died on the third attack and so did my grandfather. The doctor predicted the same fate for me.' (p. 150)

Faria dies as predicted after the third cerebrovascular event even though Dantès gave the remainder of the medicine as instructed.

'The medicine produced an immediate effect, galvanizing the old man with a violent shudder through all his limbs. His eyes reopened with a terrifying expression, he let out a sigh that was closer to a shout, then the whole trembling body relapsed gradually into immobility' (p. 166).

After Faria's death, Dantès escapes from the Château d'If by substituting himself within Faria's shroud. He is unexpectedly thrown into the sea, with his feet tied to a thirty-six pound cannonball, despite which he escapes.

Obviously we can only speculate as to Abbé Faria's condition, which although familial presents with epilepsy, renders the patient hemiplegic after the second episode and kills on the third. From a 21st-century perspective it does not make sense, and this is of course a work of fiction. We can speculate that 'some effusion on the brain' represents subarachnoid or intracerebral haemorrhage, possibly autosomal dominantly inherited. Dumas' description of Faria does not support (or anticipate) a diagnosis of Osler–Rendu–Weber syndrome or Sturge–Weber syndrome. We can also speculate that the medicine given to him by Dantès somehow acted on intracranial or blood pressure.

For answers we should look at medical concepts of apoplexy at the time Dumas was writing, bearing in mind that the postmortem differences between haemorrhage and infarction were not defined until the middle of the nineteenth century. In 1822 Serres divided apoplexies into two groups—those with and those without paralysis²—but Dumas' understanding is more likely to have been influenced by Abercrombie's *Pathological and Practical Researches on Diseases of the Brain and the Spinal Cord*³ first published in 1828. In this work, seen as a milestone in the development of neuropathology,⁴ Abercrombie divides apoplexy into three classes: 'First those which are immediately . . . apoplectic: secondly that which begin with a sudden attack of headache and pass gradually into apoplexy: thirdly those which are distinguished by palsy and loss of speech without coma'. He further subdivides primary apoplexy into apoplexy with extravasation of blood, apoplexy with serous effusion and apoplexy without any morbid appearance in the brain. This last category Abercrombie counts as simple apoplexy.

According to this classification Faria succumbed to primary apoplexy with serous effusion.

CASE TWO: MONSIEUR NOIRTIER DE VILLEFORTE

Monsieur Noirtier de Villeforte, an old man who is the father of one of Dantès' enemies, has become in modern terms 'locked-in' after an earlier stroke. Dumas describes the condition more eloquently as 'when the soul is trapped in a body that no longer obeys its commands'. Although his intellectual faculties are intact he is physically powerless:

'Sight and hearing were the only two senses which, like two sparks, still lit up this human matter, already three quarters moulded for the tomb. Moreover only one of these two senses could reveal to the outside world the

inner life, which animated this statue. . . . He was a corpse with living eyes, and at times, nothing could be more terrifying than this marble face out of which anger burned or joy shone.' (p. 564)

He is able to communicate through blinking, closing his eyes once for 'yes' and several times for 'no'. His granddaughter Valentine uses a dictionary to help him spell out letter by letter what he wishes to say. Attempts have been made to restore Monsieur Noirtier's health by use of Brucine (10,11 dimethoxystrychnine): '. . . in some illnesses, poisons become remedies, paralysis is one of these.' (p. 694). For Noirtier it is ineffective, but this agent is relevant to the plot. The cause of his locked-in syndrome, one of the most terrible fates that can befall us, is presumably vascular or traumatic damage in the ventral pons with preservation of the dorsal tegmental area, resulting in interruption of the corticospinal and corticobulbar tracts.⁵ The differential diagnosis includes akinetic mutism, a condition in which under some circumstances a patient can speak and move.⁶ A clinical entity resembling locked-in syndrome from basilar artery occlusion was reported by Darolles in 1875,⁷ but it was not until 1966 that this term was put forward by Plum and Posner,⁸ who also in a single sentence commented on Monsieur Noirtier. The condition has to be distinguished from coma and prolonged coma-like states. Classic locked-in syndrome is characterized by total immobility except for vertical eye movements and blinking, combined with preserved consciousness.⁹ If other movements are present the diagnosis may be incomplete locked-in syndrome. Few patients recover.

Dumas' description recognizes the importance to such individuals of visual and auditory stimulation and of some means of expression and control. Although our understanding of this condition has considerably increased since *The Count of Monte Cristo* the practical challenges have changed little. There is a recent case report of the successful use of intrathecal baclofen to improve motor function,¹⁰ but a review refers to the condition as a syndrome looking for a therapy.^{11,12}

DUMAS' UNDERSTANDING AND FEAR OF CEREBROVASCULAR DISEASE

In the novel, these accounts of cerebrovascular disease seem more than a device to move the plot forward or add dramatic tension. Dumas returns to it repeatedly in a way which suggests he knows and fears it himself:

'There are other things to fear . . . apart from death, old age and madness. For example, apoplexy, that lightning bolt which strikes you down without destroying

you, yet after which all is finished. You are still yourself but you are no longer yourself: from a near angel like Ariel, you have become a dull mass which, like Caliban, is close to the beasts.' (p. 478)

Dumas gives a wider description of adult cerebrovascular disease within this work. For example, there is the fate of Monsieur de Saint-Méran, who is poisoned but is diagnosed by his physician as dying of an apoplectic stroke. A second instance refers to the role of temperament in stroke: Madame de Saint-Méran, a woman of sixty-six previously of 'excellent health, sound mind and undiminished energy' dies unexpectedly (she has been poisoned). Apoplexy as a cause of her unexpected death is rejected:

'I too saw Madame de Saint-Méran a couple of times: she was petite, slightly built and much more of a nervous than a sanguine temperament. It's very rare for grief to produce apoplexy in a person of Madame de Saint-Méran's constitution.' (p. 705)

Dumas clearly had a broad understanding of cerebrovascular disease but where did he obtain this knowledge? He was not a medical student turned writer, or even formally educated. However, in 1827 he became first a patient and then a friend of Dr Thibaut who instructed him in anatomy, physiology, physics and chemistry. Dumas sometimes accompanied Thibaut as he made morning visits to the Hôpital de Charité. In his memoirs Dumas acknowledged his debt to Thibaut: 'From these visits, I learnt a little about medicine and surgery which has often been useful in my novel writing.'¹³ We can speculate that, as with medical students, experience of walking the wards had a profound influence on him, though it is noteworthy that he had an 'insurmountable repugnance for operations and dead bodies'.¹⁴

Dumas' descriptions of cerebrovascular disease are not confined to *The Count of Monte Cristo*. Rønnev-Jessen has recognized vertebrobasilar insufficiency in the symptoms of the musketeer Porthos immediately before his death.¹⁵ Details can be found in his paper but again there is a family history (on the father's side) and three previous episodes. Perhaps Dumas encountered these conditions at the Charité; however, the inspiration may have been more personal. By the time he wrote *The Count of Monte Cristo* his mother had died of cerebrovascular disease, having suffered

a stroke in 1829, leaving her left side paralysed, and a fatal recurrence in 1836.¹⁶ We can speculate that Dumas subconsciously expressed fear of a similar fate and hoped by his writing to avoid it. The family history ran true, and he in turn developed cerebrovascular disease and died of a stroke in Dieppe on 5 December 1870.¹⁷

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