Death and sorcery

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*“There are more things in heaven and earth, Horatio, than are dreamt of
in your philosophy”
Hamlet (1.5.167–8), William Shakespeare (1564–1616)*

The paper on customary law, traditional wounding and death in the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands of Central Australia raises questions about the safety of using certain forms of tribal punishments outside a controlled context [1]. It also provides an opportunity to examine other indigenous beliefs around life and death, particularly that of sorcery or witchcraft. Indigenous populations often have well-entrenched beliefs around sorcery and the use of supernatural powers, which may be evoked to explain the deaths of certain individuals. As these beliefs may appear at odds with standard forensic diagnoses in a medicolegal setting, it is useful to explore possible mechanisms of death that may provide a link between the morgue and traditional communities.

In Central Australia the setting up of “sorry camps” after a death enables tribal elders to examine the body and the circumstances surrounding the fatal episode to determine whether they think that sorcery may have been involved. Ceremonies that are undertaken following deaths can be extremely elaborate and may last for many weeks [2]. Methods of crafting autopsy reports to assist the elders with specific concerns around these processes have been previously outlined [3]. The most fearsome form of magic in this area involves a “*kurdaitcha* man,” a sorcerer capable of causing death by taking a bone (known as *neilyen*,

gundila or *injilla*) and pointing it at a victim while cursing or singing. Ritual bones can be emu, kangaroo or human, and are characterized by an attached braid of human hair, which some believe can drain a victim’s blood. Once the intended victim finds that he or she has been “sung” death often follows quite quickly [4–6]. An alternative explanation for some of these deaths has been that pointing bones are sometimes soaked in putrefying corpse fluid before being used to prick a victim [5]. In these cases lethal sepsis would have to be considered.

Sorcery is also found in many other contemporary traditional communities around the world in areas as disparate as South America, Africa, Australasia, and the Pacific Islands [7], and also among groups who may have immigrated to other countries. Thus forensic pathologists and investigating officers in any location may encounter cases where families believe that magic has been involved in the fatal episode. In socially disadvantaged rural communities in South Africa, sudden deaths or fatalities following an acute illness are often attributed to witchcraft [8], as are cases of sudden infant death in rural Tlaxcala in Mexico [9].

The cause and mechanism of death in individuals who have been cursed has been the subject of some debate [10]. Death may, of course, be completely unrelated to a possible cursing and be due instead to significant, possibly unsuspected, underlying organic disease. Such was the case of an East Timorese man in his fifties who was thought to have been the victim of witchcraft after he collapsed and died unexpectedly. His death was, however, found to be due to the effects of a bicuspid aortic valve with annuloaortic ectasia and a sinus of Valsalva aneurysm [11]. The advantage of having an autopsy performed in this situation is clear. Brugada syndrome provides a good example of how a mysterious cause of unexpected nocturnal death was

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explained once the appropriate genetic markers had been identified. Called *bangungut* in the Philippines (“to rise and moan during sleep and then die”), Brugada syndrome is now known to be an autosomal dominant condition with variable penetrance caused by mutations in the *SCN5A* gene that encodes for α subunit of the cardiac sodium channel gene. This results in lethal arrhythmias and sudden demise [12].

Deaths may also occur from organic disease that may have been exacerbated by the stress of being cursed. For example, a 53-year-old man has been reported who it was suggested succumbed to asthma after being cursed by his mother [13]. Sudden death is also known to occur in Jervell and Lange-Neilsen syndrome, a long QT syndrome with additional congenital sensorineural deafness, precipitated by an auditory startle or a strong emotional stimulus [12].

Then there are the deaths where there is no apparent significant illness; these have been referred to as voodoo, psychogenic or hex deaths, and “psychic homicides” [10]. The cause of these deaths has been discussed at some length in the literature with some authors postulating that prolonged sympathetic overstimulation may be responsible for a fatal outcome involving catecholamine toxicity [7]. This contrasts with other authors who suggest that death results merely from “giving up” [14]. Examples from zoos where caged wild animals had suddenly died are used to support the latter theory, although not all agree that this is relevant to cases in humans [10, 13]. Lester correctly notes that most cases do not have toxicological testing to rule out poisoning [10]. Although he also states that voodoo deaths should not be sudden, Comfort has pointed out that while victims of witchcraft in Europe in the sixteenth century could certainly “go into a decline,” they could also with equal frequency be “struck dead” [15].

A somewhat pragmatic suggestion has been made that Aboriginal deaths due to sorcery in Arnhem Land in Northern Australia could simply result from a failure to drink when relatives withhold food and water causing fatal dehydration [16, 17]. This concept has been criticized with comments made that withholding of food and water is not a usual practice among the Yolngu people of that area and that most of the victims in the study were old and infirm [18]. However, my only experience of a “singing” did occur in the same region and involved a young Aboriginal woman who appeared very ill on hospital admission but whose laboratory tests merely revealed dehydration. Although she was refusing to take food and water she was rehydrated with intravenous fluids and eventually left hospital without a diagnosis. It was then intimated by one of the Aboriginal elders that she had been “sung” [19]. So, in that case there appears no doubt that she would have succumbed to dehydration from her cursing if she had not been brought to hospital and treated. For that reason

vitreous electrolyte levels (in addition to blood toxicology) are essential in assessing deaths of tribal individuals where the autopsy fails to reveal an adequate cause of death.

Death may also occur in those accused of practicing witchcraft or sorcery, as was clearly documented in previous centuries in Europe and the Americas [20]. This still occurs in South Africa where one quite recent report documented 50–60 elderly women each year brought to a hospital mortuary in the Transkei whose deaths were associated with witchcraft; allegations of which had led to homicide [21]. In East Timor the killing of a suspected witch may be preceded by torture, most often involving burning of the skin [11].

In conclusion, it appears that fatalities allegedly associated with sorcery may have quite complex and different causes and mechanisms. While there may be a subtle interplay with underlying organic disease, the role of possible poisoning in these cases has yet to be clarified. The possibility of failure to drink fluids because of a belief in the inevitable outcome of the cursing must also be considered as this could lead to quite rapid dehydration and death from acute renal failure. However, as a number of subtle synergistic factors could contribute to the final episode we may have to recognize the validity of Hamlet’s opinion and realize that we may not always understand exactly what has occurred in these culturally complex cases.

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