

CLINICAL CASE REPORT

Post-mortem as preventative medicine in Papua New Guinea: a case in point

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ABSTRACT

Context: Sorcery-related killing and violence has increased in Papua New Guinea (PNG) in recent years. The international community has condemned the violence and a number of non-government organisations have called for action; however, effective and appropriate interventions at a community level remain elusive. It has been suggested within some communities and in the literature that post-mortems may help to reduce fears of sorcery and associated violence by providing an alternative biomedical explanation of death. Evidence to support this proposal, however, is limited.

Issue: In 2012 the author was working in Ok Tedi Hospital, Tabubil, a remote mining town in the Star Mountains of PNG. The area is notable for a recent rise in sorcery-related violence and murders since 2009. In March 2012 a family from a nearby village requested a post-mortem following a relative's sudden death. They clearly stated that violence and killings against suspected perpetrators of sorcery had occurred due to a similar sudden death only a year before. As such they were concerned that the nature of their relative's death would rouse suspicions of sorcery and result in violence. The family hoped that a medical explanation of their relative's death would prevent rumours of sorcery developing and reduce the risk of violence against suspected perpetrators of sorcery.

Lessons learned: The post-mortem, led by a consultant surgeon and performed in Ok Tedi Hospital, Tabubil, concluded that death was due to complications from an acute myocardial infarction. As requested these results were presented at the funeral to a congregation of approximately 80 people. Following the funeral presentation the author received feedback that fears of sorcery had been alleviated and during a 2-week follow-up period no related violence against suspected perpetrators of sorcery was observed. This case is a unique and intriguing example of biomedical and sociocultural integration in the Highlands of PNG. The presence of Ok Tedi Mine, which has provided wealth, education, transport and medical resources to the area for over 30 years, no doubt can partly explain the family's actions. For the family, however, a recent increase in sorcery-related violence would appear to be the primary reason for requesting a post-mortem. Whether these actions reduced suspicions of sorcery and the risk of subsequent



violence as the family had anticipated is unclear. However, given a recent rise in post-mortem requests from regions of PNG with some of the highest rates of sorcery-related killings it seems prudent to further investigate the role of post-mortems in the prevention of sorcery-related violence and killings.

Key words: autopsy, Papua New Guinea, post-mortem, sorcery, sorcery-related killing, witchcraft.

Context

International and local media reports of sorcery- or witchcraft-related killings in Papua New Guinea (PNG) have significantly increased over the past decade and likely reflect an increase in incidence¹. The situation has been described as an 'epidemic'² and perhaps of most concern are reports of sorcery-related killings in areas of PNG where previously such violence was rare¹. As a result the United Nations and Amnesty International have issued calls for action³ and in response PNG's government have repealed the *Sorcery Act 1971* and included 'sorcery-related killings' in an expanded list of crimes punishable by the death penalty. Such actions, unlikely to be expedited by the police and judicial system, have been rightly condemned⁴.

The diversity and complexity of PNG renders an analysis of the situation problematic⁵. Amongst the complexity, anthropologist Richard Eves makes a pertinent observation:

If there is one generalization that can be made about the diverse cultures of PNG with a fair degree of accuracy, it is the abiding belief of the people in malevolent or angry agents – whether sorcerers, witches, spirits, or God – having the capacity to cause illness, death and misfortune⁶.

It is from this premise that most local accounts of sorcery-related killings are explained⁷⁻⁹, such that death and illness result in suspicions of sorcery, accusations against individuals and violence¹⁰.

Unsurprisingly, the presence of biomedicine in the form of hospitals and rural healthcare has not resulted in uniform

changes in health beliefs. For example, in Simbu Province, Zocca reports, 'Today hardly any death or sickness is regarded as natural or accidental by the Simbus'¹¹ whilst in New Ireland Province deaths associated with 'cancer' or 'smoking too much' increasingly require no supernatural explanation⁶. Akin to Christianity and traditional beliefs, biomedical and supernatural health beliefs are neither mutually exclusive nor static within communities. In recent years requests for post-mortems from relatives in regions with the highest rates of sorcery-related killings have increased¹¹. More recently Malakai Tabar, MP (National Parliament of Papua New Guinea) stated that biomedical explanations of death devised from post-mortems would dispel rumours of sorcery and reduce violence¹². There is little evidence, however, to suggest that biomedical explanations of death in such cases really would reduce sorcery-related killings. At least one source suggests that such actions are futile:

Even when medical explanations are given relating to the cause of death, there is always the question of, 'then what caused the illness or medical condition of the deceased?''¹¹

Issue

In 2012, whilst the author was working in Tabubil, a remote mining town in the Star Mountains of PNG, a family from a nearby village (Telefomin) flew to Tabubil and requested a post-mortem. The family subsequently asked the author to present the results at the funeral ceremony, clearly stating that they hoped this process would alleviate fears of sorcery and reduce the risk of violence. This article aims to describe



this case and discuss its significance, in the context of both Telefomin and the present situation in PNG.

Background

Telefomin is a rural village situated on the border of Western and Sandaun Province in the Star Mountains of PNG. First contact with Europeans was made when Richard Thurnwald entered the area in 1914. Permanent outside contact was established with the advent of the Second World War, in the form of a military airstrip close to Telefomin¹³. Prior to this the level of development in the area was extremely limited and described by one author as Neolithic¹⁴. In 1948 a patrol post was established, and in 1950 Baptist missionaries entered the area and began converting people of Telefomin and the surrounding villages to Christianity. Wealth associated with the opening of the Ok Tedi mining project in the 1980s resulted in dramatic and complex socioeconomic changes that continue today. As a result a small sample of the population have had access to tertiary education and consequently several now live outside the home valley, working in various parts of PNG.

Telefomin traditional beliefs maintained the central premise that death could be attributed to supernatural causes, on occasion in the form of sorcery or witchcraft. Many of these beliefs continued after conversion to Christianity, including accusations of sorcery and witchcraft. Although the Church preached that such practices were evil¹⁵ related violence appears to have been minimal. Worryingly, this situation has changed in recent years. In a concerning account Jorgensen describes a series of witchcraft-related attacks in Telefomin and nearby villages since 2009¹⁶. Of particular interest are five attacks associated with the sudden death of a villager (Samuel) from an apparent heart attack in October 2011. The case presented in the present article occurred less than a year later, in March 2012. Akin to Samuel's death the deceased was middle aged (approximately 45 years) and died suddenly. The close family described previous recent killings of suspected perpetrators of sorcery following the sudden death of a family member, and it is fairly certain that they were referring to the recent spate of attacks and killings following

Samuel's sudden death. Given these events it is perhaps not surprising that close family were concerned that the nature of this death would rouse suspicions of sorcery and potentiate violence against suspected perpetrators of sorcery.

Case history

A history of events was retrieved from several witnesses by the author. The deceased was a married woman aged approximately 45 years with four children. After becoming suddenly unwell whilst working in the garden she made an attempt to reach the rural aid post. She collapsed a few yards from the rural aid post and CPR was performed for 30 minutes by the local health workers. There was no return of spontaneous circulation and death was confirmed shortly afterwards. Past medical history was notable for previous episodes of chest pain on exertion, suggestive of angina, for which the deceased had not sought any medical care. Family history was notable for the unexplained, sudden death of two brothers, both reported to be aged <50 years.

Following the death the close family transported the body in a Twin Otter plane piloted by the Mission Aviation Fellowship to nearby Tabubil and requested a post-mortem in Ok Tedi Hospital, clearly stating that they were concerned that the nature of the death would rouse suspicions of sorcery and potentiate violence.

Investigation

The post-mortem was reported to be the first to occur in Ok Tedi Hospital and was facilitated by the recent arrival of a consultant surgeon with more than 50 years of experience. The post-mortem procedure was explained to the close family who after considerable discussion decided to observe. This ensured optimal clarity to the proceedings and avoided misinterpretation of the post-mortem process.

Pink froth was exuding from the mouth and nostrils of the deceased woman, indicating severe pulmonary oedema. Widespread ecchymosis was present bilaterally on the flanks and back, suggesting death occurred in the supine



position. Gross inspection of the lungs found no pathology consistent with severe chest pain or sudden death. The pericardium was intact with no signs of effusion or pericarditis. The heart appeared large with hypertrophy of the left ventricle and substantial pericardial fat. Upon further dissection all valves and associated apparatus were seen to be intact. Gross examination of the coronary vessels revealed that the right coronary artery, left anterior descending branch of left coronary artery, and the left circumflex artery were hardened by severe atherosclerosis and calcification. An obstructive vascular lumen was found throughout much of the left coronary artery. Evidence of myocardial infarction of the left ventricle was present. No other organs were examined as it was considered that sufficient evidence had been gathered to conclude that the patient had died from acute complications of myocardial infarction. This was secondary to coronary thrombosis on a background of widespread, severe, atherosclerotic disease.

Reporting the post-mortem

The family stated that they were unable to interpret the medical terminology in the written post-mortem report. Therefore, on the family's request and following discussion with the husband of the deceased, various senior members of the village and one of the local health professionals, it was agreed that the post-mortem findings would be presented by the author as part of the funeral program in Telefomin. In this way the post-mortem findings could be relayed at an appropriate, comprehensible level to a large congregation, verbally in Tok Psin, a language spoken widely in the area. Moreover, it would provide an opportunity for open discussion with the congregation.

The post-mortem results were presented to a congregation of approximately 80 people in Telefomin and translated into Tok Psin by one of the local health professionals. The most notable question from the congregation following the explanation was almost identical to that reported by the Health Services and Institute of Medical Research in 2004: 'then what caused the illness or medical condition of the deceased?'¹¹

Follow-up

Contact was maintained with the village for 2 weeks after the event. During this time there were no reports of attacks on individuals suspected of sorcery. Furthermore, the author was assured by at least 10 separate individuals that rumours of sorcery with regards to this particular case were no longer present because an adequate alternative cause of death had been provided.

Lessons learned

In this unique case a family from a remote region of PNG requested a post-mortem following the sudden death of one of their relatives. These actions are very unusual in PNG and it is not completely clear how or why the family took these steps. The presence of Ok Tedi Mine, subsequent healthcare provisions and regular flights between Telefomin and Tabubil partly facilitated such actions. Indeed the transitions induced by the Ok Tedi Mine explain why the family were able to afford such relative extravagances and perhaps why a post-mortem was even considered. Nevertheless, the family must have had considerable concerns to go to such lengths. Pertinently, the family clearly stated that the sudden nature of two previous deaths in the family had resulted in sorcery-related killings, which are likely those described by Jorgensen¹⁶. The family also highlighted that they were concerned that further violence would follow the most recent death. It is therefore not unreasonable to conclude that the family hoped to reduce fears of sorcery and subsequent risks of violence by integrating a biomedical explanation of death with the funeral proceedings.

The limited period of follow-up makes it difficult to assess the actual impact of the post-mortem and funeral presentation. Verbal accounts from the family and congregation mostly comprised claims that the process had eliminated suspicions of sorcery with regards to this case. As mentioned, a few still concerned themselves with teleological explanations of the death (eg 'Why had the coronary arteries become occluded at that particular point in time?'). It is difficult to know whether



this small group were 'truly' concerned with this question or attempting to trigger rumours and gossip for alternative motives. Either way the absence of violence as observed by the author during the 2-week follow-up period is notable. It is not known whether this was due to successfully expediting the family's intentions (ie substituting rumours of sorcery with a biomedical explanation of death) or for other reasons. It is possible that violence occurred without the author's knowledge but this seems unlikely because previous attacks in the area had been actively publicised¹⁶.

A number of psychological and anthropological theories of sorcery and witchcraft have been put forward in an attempt to explain this sociocultural phenomenon, the common theme generally being substitution of the actual belief with an underlying primary psychosocial etiology that fits a Western paradigm. In Telefomin it has been suggested that the spate of murders since 2009 are secondary to an imported sociocultural behavior from other regions of PNG similar to the cargo cult phenomena¹⁶. Furthermore as there appears to be a consistent group of victims (those of high social standing) and perpetrators (marginalized youth) socioeconomic tensions have been identified as a driving force. In terms of psychological driving forces it is unclear whether fear of sorcery and witchcraft has any role in driving the perpetrators of violence in Telefomin. Certainly the family of the deceased and those of higher social standing and responsibility in the village all implied that rumours and subsequent fear of sorcery would lead to violence. These views will have been reinforced by Christian beliefs and teachings that sorcery is 'evil' and therefore should be feared and extinguished^{1,15}. The potential perpetrators' beliefs and motives, on the other hand, may have been very different. Based on this model the post-mortem and subsequent presentation perhaps subdued fear and anxiety in the observing population but had limited effect on the potential perpetrators and their associated driving forces. The lack of violence in the follow-up period argues against this model, suggesting rather that the presentation had beneficial effects on all parties –observers, potential victims and potential perpetrators.

Of course, the true effect of the post-mortem presentation on the village will never be elucidated. Observations from Australia on exactly this topic provide an intriguing transcultural comparison perhaps of relevance. After dealing with a case of sorcery in Australia, medical officer David Watson concluded, 'It is important to explain Western concepts of disease to Aborigines. If accepted, the explanation may alleviate the anxiety and fear of sorcery'¹⁷. More recently Byard and Chivell reported that swift delivery of an adapted, shortened post-mortem report together with an official statement that no physical evidence of magical interference had been detected could help prevent unnecessary 'pay back' killings¹⁸.

Whether post-mortems really can prevent sorcery- and witchcraft-related violence in PNG is a question that needs to be addressed. A secondary concern is the possibility of providing post-mortems as a health resource. The perceived and real difficulty of performing post-mortems in PNG and subsequent low rates of post-mortem nationally was highlighted in an editorial more than 30 years ago¹⁹. The situation remains much unchanged and providing nationwide access to high quality post-mortems is far from possible. National statistics, politician statements and this case suggest, however, that there is growing demand. If this is true, what is driving it? And how should increasing requests for post-mortems be addressed by health services? Possible answers to these questions are beyond the scope of this article but clearly this is an area in much need of research.

The current situation in PNG has been internationally condemned and numerous organisations have called for action. How this translates at a community level is unclear. This unique case provides insight into a community's self-driven attempt to act – turning, intriguingly, to biomedicine and actively requesting a post-mortem. Whether the biomedical explanation of death in this case dispelled rumours of sorcery, and more importantly prevented related violence against suspected perpetrators of sorcery, remains unclear. There is evidence, albeit limited, to suggest that a part of the population in Telefomin and across PNG believe that post-mortems have a role to play in preventing sorcery-related killings. In this desperate situation, where examples of constructive action are sparse, it seems unwise to ignore such suggestions.



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