Widow inheritance and HIV/AIDS in rural Uganda

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Table 1 Organisms isolated from 2906 pleural fluid samples (January 2001–December 2004)

Organism	*No. of isolates (%)*
Gram-negative	412 (86.4)
Acinetobacter spp.	132 (27.7)
Pseudomonas spp.	114 (23.9)
Klebsiella spp.	60 (12.6)
Escherichia coli	56 (11.7)
Enterobacter spp.	25 (5.2)
Proteus spp.	16 (3.4)
Citrobacter spp.	9 (1.9)
Gram-positive	65 (13.6)
Staphylococcus aureus	46 (9.6)
Enterococcus spp.	7 (1.5)
Streptococcus pneumoniae	6 (1.3)
Viridans streptococci	4 (0.8)
Group A beta-haemolytic streptococci	2 (0.2)
Total	477

Discussion

In the past, aerobic Gram-positive organisms have been the most frequent isolates in acute thoracic empyema.[3–5] In a study, *S. aureus* and *S. pneumoniae* accounted for the predominant isolates.[3] Other studies have found viridans streptococci as the most commonly encountered aerobic bacteria.[4,5] Although pneumococci and staphylococci remain the predominant organisms in many series, Gram-negative aerobic bacteria are emerging as important pathogens in cases of thoracic empyema.[6,7] A similar observation has been found in the current study. In this study, Gram-negative organisms accounted for 86.4% of our culture-proven cases of pleural effusion/empyema. Though *S. aureus* was the most common Gram-positive organism, it was only the fifth most common organism isolated. A hospital environment confers a change in the epidemiological spectrum of diagnosed cases of pleural effusion, and there is a higher incidence of nosocomial infection and normally highly resistant organisms are the general aetiological agents.

The predominant isolation of Gram-negative organisms in the current study is significant, as it has a bearing on the outcome of infection and on the choice of empiric antimicrobial therapy to be administered to the patient. In a 10-year retrospective study on acute thoracic empyema in a tertiary medical centre in Taiwan,[4] it was observed that patients with acute thoracic empyema caused by aerobic Gram-negative bacteria had a significantly higher mortality rate than those with empyema caused by other isolates. Furthermore, most of the Gram-negative organisms in the current study demonstrated a high level of resistance to conventional antimicrobial agents tested. Beta-lactam/beta-lactamase inhibitor combinations and carbapenems appear to be promising agents for treatment of such infections. As regards the Gram-positive organisms, as approximately one-third of the staphylococcal isolates were methicillin resistant, vancomycin and teicoplanin may be considered as drugs for initial therapy.

The key to successful outcome for patients with complicated pleural effusion lies in early diagnosis, treatment with appropriate antibiotics and adequate drainage. Knowledge of locally endemic, antibiotic-resistant organisms would help in making a judicious choice of antimicrobial agents for treatment of such cases.

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SUMMARY Despite current efforts to combat HIV/AIDS through behavioural change, ingrained socio-cultural practices such as widow inheritance in south-western Uganda has not changed. Low education, unemployment, dowry, widows' socioeconomic demands and the inheritor's greed for the deceased's wealth, influence widow inheritance. Voluntary counselling and testing is needed for the widows and their inheritors; formal dowry should be removed from marriage and widow inheritance stripped of its sexual component.

Introduction

Uganda adopted an open policy towards AIDS in the early 1980s.[1] Efforts included sero-surveillance to identify HIV/AIDS cases; support services to care for the sick; counselling and anonymous testing; and advocating abstinence, faithfulness, condom use and disclosure. However, these endeavours clash with ingrained socio-cultural factors. In Uganda, women's roles are generally

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perceived as keeping the house and looking after the interests and needs of the men. Women have low participation rates in decision making on sexuality. Prevailing attitudes value children even outside marriage, and women derive rights from being married. Widow inheritance is regarded as a social obligation to ensure the care for the widow and the orphans.

Widow inheritance is characterized by fear, apprehension and greed.[2] It has been the centre of controversy even before the emergency of HIV/AIDS.[3,4] It is a mismatch and an undesirable alliance, without the widow's choice, which serves to support the practice of polygamy. Currently, there is increasing concern about widow inheritance augmenting the spread of HIV.[5] We investigated the factors contributing to the persistence of widow inheritance among the *Nkore* ethnic group in rural southwestern Uganda.

Materials and methods

Study design and setting

This survey was conducted in Kashari Health Sub-District (HSD), Mbarara district, 315 km southwest of Kampala. The HSD is rural with 162,594 inhabitants. It has 15 health centres that offer preventive and curative services. Voluntary counselling and testing for HIV is offered once a month as an outreach activity at the referral health centre by AIDS Information Centre – a non-governmental organization. Major health problems are malaria, pneumonia, HIV/AIDS, sexually transmitted infections and skin diseases.

Data collection and analysis

A random sample of 210 households was chosen from seven villages in four sub-counties, using household lists obtained from the sub-county offices. One adult respondent above 18 years per household was randomly interviewed. In addition, 74 respondents were purposefully enrolled in seven Focus Group Discussions (FGDs) – one focus group interview per village. A questionnaire was used for collection of quantitative information, and an FGD guide for qualitative data. Tape recorders were used in FGDs. The study was approved by Mbarara University Faculty of Medicine Research and Ethics Committee. All standard ethical procedures (informed consent, confidentiality, etc.) were followed. A stepwise regression analysis was conducted for the independent variables (education level, marital status, religion, occupation and gender) – models 1, 2, 3, 4 and 5 – to gain a precise view of their importance in the persistence of widow inheritance. For the FGDs, standard focus group analytical procedures were followed.

Results

In total, 147 (70%) respondents reported the existence of widow inheritance in their communities. Men were more likely to report the existence of widow inheritance than women ($P<0.05$). One hundred and one (48%) felt the tradition was unhealthy because it lead to dissolution of the inheritor's family. It was reported that not all widows were inherited because of: fear of AIDS, 62 (29.5%); widows sometimes not interested, 16 (7.6%), and consideration of the tradition as outdated (13.8%). Sixty-one (29%) supported widow inheritance and said that the parties involved (the widow and the inheritor) do not need to screen for HIV before intimacy.

From Table 1, it was observed that those without formal education had a more favourable attitude towards widow inheritance ($P<0.05$) regardless of marital status and religion ($P<0.05$). The unmarried favoured widow inheritance but the difference compared with the married was not statistically significant. The unemployed and women were also more likely to support the practice.

Through FGDs, it was established that the 'dowry' that is demanded by the parents and relatives of the bride positively influence widow inheritance. Other factors included social and economic demands of the widow (social security, emotional and spiritual support, raising the orphans and providing them with school fees). The inheritor's greed for deceased's wealth was also reported. Some community members said that widow inheritance was a way of life, started by the ancestors, and they believed it should continue. All men from 18 years (the age of consent in Uganda) were reported as eligible to inherit widows. There was no limit to the number of widows an individual could inherit.

Table 1 Association between 'positive suggestions to widow inheritance' with other variables (adjusted OR and 95% CI)

Variable category	*Model 1 OR (95% CI)*	*Model 2 OR (95% CI)*	*Model 3 OR (95% CI)*	*Model 4 OR (95% CI)*	*Model 5 OR (95% CI)*
Education					
Formal education					
No formal education	0.2 (0.0–0.9)*	0.2 (0.0–0.8)*	0.1 (0.0–0.6)*	0.3 (0.1–1.6)	0.3 (0.1–1.7)
Marital status					
Married					
Unmarried		0.6 (0.2–1.5)	0.5 (0.2–1.3)	0.5 (0.2–1.2)	0.5 (0.2–1.4)
Religious affiliation					
Adventist					
Catholics			0.2 (0.0–1.3)	0.3 (0.1–1.7)	0.3 (0.1–1.7)
Anglican			0.5 (0.1–2.7)	0.6 (1.1–3.6)	0.6 (0.1–1.3)
Occupation					
Employed					
Unemployed				0.2 (0.0–1.3)	0.3 (0.1–1.4)
Gender					
Male					
Female					0.7 (0.3–1.8)

OR=odds ratio, CI=confidential interval, *$P<0.05$

Discussion

Widow inheritance is clearly still practiced in south-western Uganda despite campaigns directed at behavioural change to combat HIV/AIDS. It mainly involves widows of childbearing age and sexual relations are mandatory. This practice of sexual networking whereby men who inherit widows have multiple sexual partners encourages the spread of HIV.[6]

Women were rather reluctant to discuss widow inheritance because the topic was sensitive. Widow inheritance was associated with low or lack of formal education putting the women more at risk of contracting HIV. A study in Zambia reported that lack of education quadrupled the chances that a woman would contract HIV.[7]

In order to design an intervention especially on this sensitive issue of widow inheritance, it is vital to work within the social constructs rather than attempting to change a custom that has developed over years. Although formal dowry plays an important role in cementing the marriage relationship in south-western Uganda, it should be removed from marriage. Dowry causes in-laws to inherit widows thereby giving the HIV/AIDS pandemic an opportunity to spread. Modification of the cultural practices and or even discontinuation of widow inheritance are possible as reported in northern Uganda.[8]

Greed for the deceased's wealth was reported – more likely resulting from poverty. In *Ankore* custom, the 'heir' (inheritor) is the custodian of the widow, children and the wealth. Culturally, the heir is not obliged to submit accountability of the inherited wealth. Many women are ignorant about the law. The Uganda Constitution,[9] Article 33(1), states that 'women shall be accorded full and equal dignity of the person with men'. Article 26(1) guarantees the right of every person to own property, either individually or in association with others, which on the one hand implicitly confirms women's equal right to own property but on the other hand confirms a husband's right to own property already registered in his name. Article 33(6) prohibits laws, customs and practices that discriminate against women on the grounds of their sex. The Succession Act of 2000 Article 27(1) clearly states the general rules about inheritance.[10] While the law is adequate, it alone cannot significantly impact on rural women unless other steps are taken.

Conclusion and recommendations

Widow inheritance is still practiced among communities in south-western Uganda. Although it has low support, this is likely to hamper HIV/AIDS prevention efforts. Voluntary counselling and testing should be considered for widows and inheritors who enter an inheritance union. Efforts should be directed at removing formal dowry from marriage and stripping widow inheritance of its sexual component and transform it into 'symbolic inheritance.'

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Typhoid ileal perforation in Ghana: a five-year retrospective study

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Introduction

Typhoid perforation is the most lethal surgical complication of typhoid enteritis and is one of the leading causes of peritonitis in developing countries.[1–3] Patients perforate during the course of illness when they are already very ill from the systemic effects of typhoid fever and are probably malnourished. The clinical peritonitis is invariably associated with purulent or faecal peritonitis. The morbidity and mortality from typhoid perforation is therefore very high.[4]

Initially, typhoid perforation was managed non-operatively but this had a very high mortality.[5] Although no randomized trials have been carried out, surgical intervention is clearly the method of choice in modern surgical practice as it has led to a reduction in mortality.[1,3,5]

The Korle Bu Teaching hospital (KBTH) is a tertiary hospital serving the Accra metropolis and southern Ghana. There are four adult general surgical units and a paediatric surgery unit to which patients with typhoid perforation are referred. An analysis of typhoid perforation managed by all the units at the KBTH over a five-year period was done to determine the current incidence, preoperative care, operations performed and mortality from the disease.

Methods

A retrospective analysis of records from the operating theatres, theatre recovery wards and the admitting wards