Mortality from traditional-medicine poisoning: a new perspective from analysing admissions and deaths at Ga-Rankuwa Hospital

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WE REPORT ON THE MORTALITY FROM traditional-medicine poisoning of patients admitted at Ga-Rankuwa Hospital. Data from three specific periods, 1981–1985, 1987–1992 and 1996–2000, were analysed. A toxicology textbook stated that 50% of deaths among black South Africans were due to traditional medicines, but this figure was based on a journal article that was grossly misinterpreted. Our results show that the mortality from traditional-medicine poisoning in patients admitted to Ga-Rankuwa Hospital has decreased from, on average, six patients annually for the period 1981–1985 to one patient per year for the period 1996–2000.

Background

The Department of Pharmacology and Therapeutics at the Medical University of Southern Africa has been monitoring the numbers of patients admitted to Ga-Rankuwa Hospital with traditional-medicine poisoning since 1981. Previously collated data cover the periods 1981–1985 and 1987–1992.

In 1990, Joubert reported on 31 deaths due to poisoning with traditional medicines. These represented 15.3% of all cases of poisoning with traditional medicines, and 51.7% of all deaths due to acute poisoning. These figures were subsequently distorted when quoted in a textbook on medical toxicology, as follows: "In South Africa, Joubert reported that the major causes of death among black South Africans were traditional medicines (about 50% of deaths) followed by paraffin (kerosine) (about 25% of deaths)".3

In this article we place Joubert’s figure of 51.7% in the correct perspective, and provide further details of the extent of mortality due to traditional medicine poisonings in Ga-Rankuwa patients from July 1996 to July 2000.

Methods and results

Registered nurses from the Department of Pharmacology and Therapeutics regularly visited the Internal Medicine and Paediatrics wards to collect information about patients admitted with all forms of poisoning, the details of which are entered on a standard information sheet.

Food poisoning, acute ethyl alcohol intoxication, unidentified poisoning, animal bites and stings were excluded in this analysis. In comparing the most recent information with the previous data, five categories of poisoning were used: paraffin, pesticides, drugs (medication), plants and traditional medicines.

The numbers of all patients admitted to or seen at Ga-Rankuwa Hospital for the year March 1997 – March 1998 were obtained, to determine the number of deaths due to traditional-medicine poisonings. Unfortunately, we were unable to obtain the total number of all deaths for the same period.

The results are expressed as actual numbers and percentages in terms of the five specified categories in Table 1.

Discussion

Ga-Rankuwa Hospital serves large areas of peri-urban Gauteng and is also a major referral hospital for parts of North West Province, Northern Province and Mpumalanga. During the three periods, 1981–1985, 1987–1992 and 1996–2000, the number of deaths from traditional-medicine poisonings decreased from an average of six per year (1981–1985) to one per year (1996–2000).

The distorted interpretation quoted in Ellenhorn’s textbook is placed in perspective by re-examining the results reported by Joubert.1 He found that the total number of deaths from poisonings for the period 1981–85 was 58: 16 due to paraffin, five due to pesticides, two to plants, 31 as a result of traditional medicines and four from drugs. Thirty-one of 58 deaths, using only these five categories, gives a percentage of 51.7%.

The quotation by Ellenhorn1 that 50% of deaths in black South Africans is caused by traditional medicines is disturbing because it implies that this is an enormous problem throughout South Africa. The truth is otherwise. The information in fact reflects only the numbers at Ga-Rankuwa Hospital for one particular period. From a total of 175 970 patients seen at or admitted to the hospital over a year (March 1997 to March 1998), three deaths from traditional-medicine poisoning is a mere 0.0017%. In terms of admissions for traditional-medicine poisonings, three patients out of 32 (almost 10%) died. This is a far cry from 50% of (poisoning) deaths in black South Africans supposedly being caused by traditional medicines.

It is worth noting that paraffin ingestion remains the cause of the highest number of deaths from poisoning. This major socioeconomic-related health problem in South Africa continues to cause extensive morbidity and mortality. The great increase in pesticide poisonings over the years (Table 1) is also worth noting. Our clinical impression is that these are mostly cases of para-suicide.

We thank former Medical Superintendent, I.S.N. Ntuli, for providing the statistics for Ga-Rankuwa Hospital for the year March 1997 – March 1998.

Table 1. Numbers (and percentages) of admissions due to acute poisoning from five common agents at Ga-Rankuwa Hospital.

<table>
<thead>
<tr>
<th>Period covered</th>
<th>Total</th>
<th>Paraffin</th>
<th>Pesticides</th>
<th>Drugs</th>
<th>Plants</th>
<th>Traditional medicines</th>
<th>Deaths due to traditional medicines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981–1985†</td>
<td>1164</td>
<td>760</td>
<td>76</td>
<td>63</td>
<td>61</td>
<td>204</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(65.3)</td>
<td>(6.5)</td>
<td>(5.4)</td>
<td>(5.2)</td>
<td>(17.5)</td>
<td>(15.20)†</td>
</tr>
<tr>
<td>1987–1992†</td>
<td>3394</td>
<td>2380</td>
<td>259</td>
<td>222</td>
<td>220</td>
<td>313</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(70.1)</td>
<td>(7.6)</td>
<td>(6.5)</td>
<td>(6.5)</td>
<td>(6.5)</td>
<td>(9.2)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(13.42)†</td>
</tr>
<tr>
<td>1996–2000*</td>
<td>2067</td>
<td>1083</td>
<td>645</td>
<td>133</td>
<td>108</td>
<td>98</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(52.4)</td>
<td>(31.2)</td>
<td>(6.4)</td>
<td>(5.2)</td>
<td>(4.7)</td>
<td>(5.10)†</td>
</tr>
</tbody>
</table>

*The percentage of patients who died after being admitted with poisoning due to traditional medicine.