Konzo Associated with War in Mozambique

Summary of published paper

Konzo (also known as cassava poisoning) is a medical condition associated with eating insufficiently processed cassava. This condition affects the central nervous system. Outbreaks of Konzo have been reported in a number of situations where populations have been extremely food insecure and have not been able to wait until their cassava crop has fully ripened before consuming it. Unripe cassava can contain high levels of cyanogenic glucosides which cause the symptoms of Konzo.

A group of investigators have recently published a paper reporting their findings on a Konzo epidemic in Mongicual district in Mozambique in 1993. Fighting was particularly severe in the district in the months before the peace accord which was signed in late 1992, as both sides fought to capture the maximum territory possible. The research team found that the prevalence rate in the badly affected area was 30/1000. Three hundred and eighty four patients were treated in rehabilitation centres. Most of the patients were children over 3 and women. Patients complained of difficulty in seeing, hearing and talking. Many had increased upper limb reflexes. All complained of difficulty in walking and of those who could walk many had a spastic gait. Some also had diminished sensitivity to light touch and pinpricks. Agriculture in Mogincual is based on small family holdings with cassava as the main food crop. There is normally a two year period between cassava planting (August to October) and harvesting. Women process harvested cassava by sun-drying for 1-3 weeks and then store it in house attics for use throughout the year. During the war most people fled from the rural areas. For those who stayed agriculture was severely disrupted as farmers could not spend long in their fields and monkeys managed to decimate crops. Bitter cassava production increased and new varieties were introduced. These types of cassava were favoured by farmers as they were more productive, had a short reproductive cycle and were resistant to predation by monkeys and wild pigs.

In 1992, returnees could only plant cassava when they returned home after October. As seed and tools were either non-existent or handed out too late they could not plant other crops. In 1993, they therefore had to harvest cassava earlier than usual and shorten its processing. They often used rapid sun-drying where the tuber is peeled, pounded, dried in the sun for a few hours, pounded into flour and then eaten on the same day. Owing to the on-going war, communities turned to bitter cassava as their staple and took shortcuts in the processing. When the war ended they continued to depend on inadequately processed bitter cassava. The Konzo epidemic lasted 2 years, the last year of the war and the first of peace, with peaks each year during the cassava harvest.

Conclusion

Earlier Konzo epidemics in Mozambique were associated with drought-provoked agricultural crises. This time war was the cause of the agricultural crisis rendering the population dependent on a diet of insufficiently processed bitter cassava. The food shortages forced families to eat bitter cassava after only one day of sun-drying, a method that probably does not adequately lower cyanohydrin concentrations. Increased use of cassava as a staple in war has been reported from other countries such as Vietnam and Rwanda. Although this is the only documented Konzo epidemic associated with war, anecdotal reports suggest that such epidemics have also occurred in Angola and Uganda.

Reference
