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ANTHRAX - INDIA (07): (ODISHA) CATTLE, HUMAN, TOXIC MUSHROOMS
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https://odishatv.in/odisha/food-poisoning-anthrax-cases-soar-in-odisha-as-tribal-rely-on-wild-mushroom-or-dead-cattle-goat-meat-394317

Here is food for thought for the state's powers-that-be. Due to lack of access to cheap protein, poor, backward, and tribal districts in the state are turning to wild mushrooms and dead cattle/goat meat, which is leading to a rise in food poisoning and anthrax cases in Odisha.

Though the Odisha government has launched with much fanfare the Odisha Food Security Act with an objective to ensure food security of 34 lakh [3 400 000] more families, a reality check reveals how many villages in the backward and tribal districts of the state, for want of nutrition, bank on wild mushrooms and dead cattle, resulting in outbreaks of anthrax. According to the data available with the Integrated Disease Surveillance Centre, the state had reported, until the end of July [2019], around 50 food poisoning cases and around half a dozen anthrax cases.

Though outbreaks have come from across the state, most have been reported from tribal and backward districts like Koraput, Nabarangpur, Rayagada, Kalahandi, and Sundergarh. The district disease surveillance centres declare a disease as an outbreak when it affects either an area (village/wards), or a community (SC/ST), or both.

An analysis of the reports at the nodal surveillance centre suggest how villages in districts like Koraput, Rayagada, and Nabarangpur have witnessed outbreaks of food poisoning because of consumption of wild mushrooms collected from nearby jungles. Reports show how villages in the districts of Koraput and Sundergarh reported anthrax outbreaks in June-July this year [2019] linked to consumption of meat of dead cattle and goats. Even Subarnapur, grouped among 250 backward districts nationally in 2006, has reported food poisoning outbreak caused by consumption of castor fruits by children.

The disease outbreaks in such tribal and backward districts give some subtle hints to the policy planners of the state.

As almost all the districts are high in poverty, they can't afford the dals [dried, split pulses] or meat when they need proteins in their diet, and they rely on wild mushrooms and dead cattle or goats to meet their needs. Lack of awareness regarding food hygiene and safety in the villages of such districts makes them vulnerable to bouts of food poisoning.

These districts, especially Kashipur in Rayagada, showed high rates of mango kernel poisoning deaths in the early 2000s. The tribes had depended on mango kernel for lack of staple food, which in turn led to food poisoning deaths. As mango seed kernels contain significant amount of tannins, it has a deleterious effect when consumed in large quantities.

The bouts of food poisoning in tribal and backward districts reveal very little change in nutritional security there. The neighbouring Chhattisgarh government supplies dal via the Public Distribution System to BPL [Below Poverty Line] card holders.

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[For a description of Odisha and where it is in India, go to https://en.wikipedia.org/wiki/Odisha.

Worldwide, human anthrax is a function of rural poverty and malnutrition. And it would not be surprising to find it associated also with the consumption of toxic mushrooms, even toxic fish, fruit, and roots.

When the medical teams are investigating rural human cases of anthrax, they should remember that the source is a dead animal, usually a cow. So to control this problem, they must include their veterinary colleagues, and the sooner the better. - Mod.MHJ]

[There is no indication of the type of mushrooms collected. A number of mushrooms are toxic and capable of causing death or serious illness.

Tannins were mentioned in relation to the mango seed kernel, which is high in proteins. Tannins are responsible for the astringent taste we experience when we partake of wine or unripe fruits. Tannins are naturally occurring plant polyphenols. Their main characteristic is that they bind and precipitate proteins. They can have a large influence on the nutritive value of many foods eaten by humans and feedstuff eaten by animals. Tannins are common in fruits (grapes, persimmon, blueberry, etc.), tea, chocolate, legume trees (_Acacia_ spp., _Sesbania_ spp., etc.), and grasses (sorghum, corn, etc.). High levels of tannins in a monogastric, such as a child or young goat or calf, may cause depressed growth rates, low protein utilization, damage to the mucosal lining of the digestive tract, alteration in the excretion of certain cations, and increased excretion of proteins and essential amino acids.

So in addition to consideration of unhealthy aspects of consuming an animal that may have died of anthrax or other disease or toxicity, these people are under food-shortage stress and lack knowledge as to what they can safely eat, including native plants in their area. Likely there are other toxic plants aside from mushrooms and plants containing tannins. One also wonders about the quality and availability of safe drinking water in the area. - Mod.TG

HealthMap/ProMED map available at:
Odisha state, India: http://healthmap.org/promed/p/315]

See Also

Anthrax - India (06): (Odisha) tribal areas 20190801.6600157
Anthrax - India (05): (Andhra Pradesh) human 20190715.6567795
Anthrax - India (04): (Telangana) sheep, human exposure 20190527.6489228
Anthrax - India (03): (Odisha) cattle, human 20190323.6382613
2018

Anthrax - India (16): (Andhra Pradesh) human, fatal, bovine vaccination 20181101.6123798
Anthrax - India (15): (Andhra Pradesh) human, susp. 20181028.6116068
Anthrax - India (13): (Odisha) human, bovine 20180725.5924600
Anthrax - India (12): (Odisha) human 20180717.5909064
Anthrax - India (11): (Odisha) elephant, conf 20180630.5881926
Anthrax - India (04): (Andhra Pradesh) human, bovine, more cases 20180427.5771052
Anthrax - India (03): (Andhra Pradesh) human, susp 20180426.5769013
Anthrax - India (02): (AD) livestock, human 20180413.5743706
Anthrax - India (01): (Andhra Pradesh) human, susp 20180404.5726158
2017

Anthrax - India (19): (Telangana) human, susp. 20171228.5523775
Anthrax - India (18): (Andhra Pradesh) ovine, humans, susp 20171023.5398650
Anthrax - India (17): (Andhra Pradesh) ovine, humans 20171021.5395548
Anthrax - India (14): (Andhra Pradesh) caprine, human, update 20170915.5318158
Anthrax - India (13): (Andhra Pradesh) caprine, human 20170913.5312883
Anthrax - India (12): (Andhra Pradesh) livestock vaccination 20170702.5143907
Anthrax - India (11): (Andhra Pradesh) caprine, more human cases 20170701.5142677
Anthrax - India (10): (Andhra Pradesh) caprine, human conf. 20170630.5138798
2016

Anthrax - India (10): (Odisha) caprine, porcine, human, fatal 20160414.4156678
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