

Trichinosis Outbreak after Ingestion of Barbecued Badger

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Trichinella spiralis is a parasite of carnivorous animals that causes the disease trichinosis. Human infection results from ingestion of undercooked pork products or game meat. The latter encompasses but is not limited to bear, walrus, and cougar.¹⁻³ Badger (*Meles meles*) is known to be infected with *Trichinella spiralis*.⁴ An outbreak of trichinosis after the ingestion of barbecued badger is described.

The badger was killed by a hunter. Meat was treated in vinegar for a few hours and a barbecue was prepared. All nine people who ate the barbecue subsequently developed trichinosis and were hospitalized at the regional hospital. Median age of the patients was 30 years (range, 8-50 y). There were five males and four females among them. The incubation period ranged from 16 to 30 days (median, 21 d). Main clinical and laboratory findings are shown in Table 1. The most common clinical findings were acute onset of disease, fever, myalgia, hepatomegaly, and facial edema. Maximal body temperature ranged from 37.4°C to 40.2°C (median, 40°C). Three patients experienced episodic fever. Peripheral eosinophilia was observed in all patients. The median percentage of eosinophils in peripheral blood smears was 31% (range, 15-56%). Laboratory signs of liver dysfunction (slight elevation of alanine aminotransferase [ALT] or direct bilirubin) were detected in four patients. Bone marrow biopsy was done in one patient with the highest eosinophilia and revealed no abnormality. Echocardiograms were done in all patients because myocarditis occasionally is a serious complication of trichinosis.⁵ None of the patients had any abnormality. Muscle biopsies were not done in any patient.

All patients had specific antibodies as measured by enzyme-linked immunosorbent assay (ELISA). The titer ranged from 1:400 to 1:81,920. Microscopic investigation of the badger skin revealed motile *Trichinella spiralis*. The patients were treated with mebendazole.⁶ Eosinophil count was elevated in six of nine patients (median, 12%; range, 11-34%) 9 to 10 weeks after the onset of disease.

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CONCLUSION

In the outbreak of trichinosis after ingestion of barbecued badger, clinical findings were consistent with a primary myopathic form of disease.⁷ All patients recovered, but eosinophilia persisted in six of nine patients 9 to 10 weeks after onset of disease.

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Table 1. Clinical and Laboratory Findings in Nine Patients with Trichinosis

Findings	Number of Patients with Abnormality
Acute onset	9
Myalgia	9
Hepatomegaly	9
Fever	8
Facial edema	7
Rash	5
Hand edema	2
Diarrhea	1
Stomach ache	1
Leukocytosis (>10 × 10 ⁹ /L)	3
Eosinophilia	9
Fibrinogen (>4 g/L)	5
ALT	4
Direct bilirubin	2

ALT = alanine aminotransferase.