

Alert

Newsletter of the Nunavik Department of Public Health

Trichinellosis (Trichinosis)

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Context

A case of trichinellosis in the community of Inukjuaq has been reported to the Nunavik Department of Public Health (DPH).

Although identified late, meat from a polar bear consumed raw was found as the source of the contamination, and some contaminated meat might still be available in the community. Clinicians of the region are called on to heighten their alert level, as other cases may arise over the coming weeks. For that purpose, a public notice will be issued.

An issue of *Info-MADO* was produced and circulated on March 1, 2023, on eosinophilia and trichinellosis (trichinosis). Refer to that issue for further details.

[Info-MADO-Vol 11 no 2 - trichinellose 2023-02-28-VF.pdf \(nrbhss.ca\)](#)

Epidemiology

Trichinellosis (or trichinosis) is a parasitosis transmitted to humans through the consumption of raw or insufficiently cooked meat. Although bears (black and polar), foxes and wolves are the primary carriers, in Nunavik, walrus meat is the type most likely to transmit the parasite. The parasite is present in most polar bears. Although rarely found in seals, the parasite has been found in some specimens.

Clinical Picture

Nausea, abdominal pain and diarrhea occur during the first week. One to two weeks after the onset of infection, muscle pain, oedema, muscle weakness and various systemic symptoms can occur. As the facial muscles constitute a particularly affected area, facial oedema (including periorbital) with muscle pain and local paresthesia is often seen.

An absolute value of eosinophilia higher than $0.8 \times 10^9/L$ in Nunavik is suggestive of trichinellosis. The positivity rate of serology for trichinellosis rises until three to four weeks after ingestion.

Treatment should be considered if a diagnosis of trichinellosis is considered and should be discussed with the MUHC's tropical-diseases unit.

Chemoprophylaxis (mebendazole 400 mg po tid for adults for three days) should be considered for an asymptomatic individual when initiated within 14 days after ingestion of the meat in question.

Clinical Actions

- 1) Seriously consider trichinellosis particularly in individuals with compatible symptoms and with exposure including consumption of raw or insufficiently cooked bear meat in Inukjuaq.
- 2) When faced with an absolute value of eosinophilia higher than $0.8 \times 10^9/L$:
 - a. Consider the possibility of trichinellosis (trichinosis).
 - b. Perform a serum test for trichinellosis. If negative, repeat the test after 14 days. Follow-up of eosinophilia can be an indicator of the evolution of the infection.
 - c. Ask about the consumption of foods (country food) in the past month (particularly walrus or bear meat).
- 3) When faced with an absolute value of eosinophilia higher than $0.8 \times 10^9/L$ **AND** a possible clinical diagnosis trichinellosis (based on the clinical picture and exposure through food):
 - a. Report to the Nunavik DPH physician on duty for infectious diseases, by telephone at 1-855-964-2244 or 1-819-299-2990.
 - b. Discuss clinical actions with the MUHC's tropical-diseases unit (Dr. Yansouni, Dr. Libman) or the infectious-diseases specialist on duty (514 934-8075).
- 4) When faced with a positive serum test for trichinellosis (trichinosis):
 - a. Make a *MADO* (reportable disease) report and send the AS-770 form to the Nunavik DPH by fax at 1-866-867-8026 or by e-mail at surveillance.vigie.nrbhss@ssss.gouv.qc.ca.

*A suspected or confirmed case of trichinellosis will be subject to an epidemiological investigation by the DPH.