

Asymptomatic intramuscular cysticercosis

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CASE REPORT

A 83-year-old woman with past medical history of stroke and vascular dementia, was brought to the emergency department with acute onset of aphasia and right hemiparesis. She did not report any muscle pain or any other abnormal neurologic symptoms. Her physical examination was otherwise unremarkable. Cerebral computed tomography scan did not demonstrate calcifications suggestive of neurocysticercosis and she was admitted with the diagnosis of left middle cerebral artery stroke. Chest radiography revealed numerous “rice grain” calcifications throughout the thorax, oriented in the plane of muscle fibers, whose appearance was highly suggestive of disseminated cysticercosis with muscular involvement (Figure 1). A careful review of previous radiological imaging revealed pelvic (Figure 2) as well as superior and inferior limbs involvement (Figure 3). Laboratory test results were unremarkable. Anticysticercal antibodies tests were not performed due to financial restrictions. Since patient was asymptomatic at the time of diagnosis, no specific therapy was administered. Unfortunately, the patient died shortly after the diagnosis due to acute complications of stroke, restraining additional tests.

DISCUSSION

Cysticercosis is a tropical disease, highly prevalent in Africa, Asia and Latin America [1]. While endemic

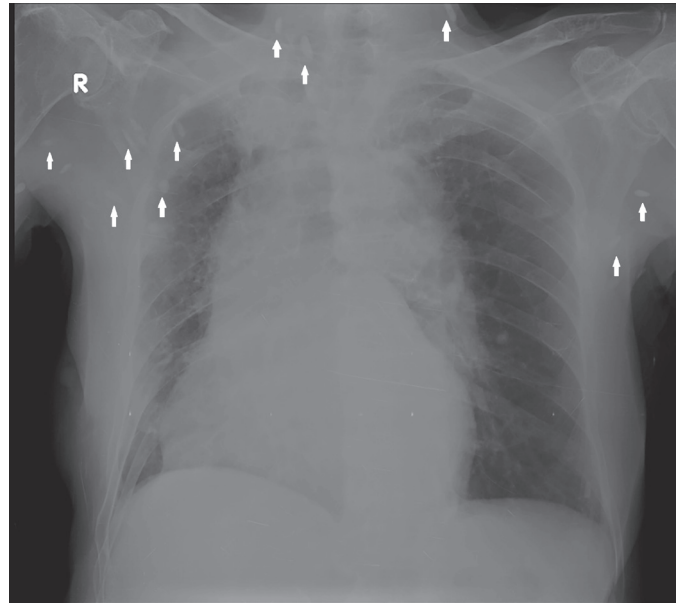


Figure 1: Thorax radiograph: Numerous “rice grain” calcifications throughout the thorax oriented in the plane of the muscle fibers, appearance highly suggestive of intramuscular cysticercosis.

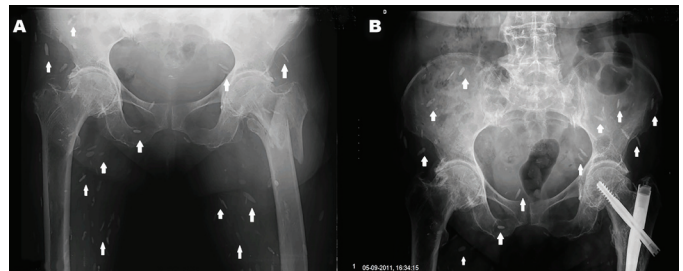


Figure 2: (A–B) Pelvic involvement of cysticercosis.

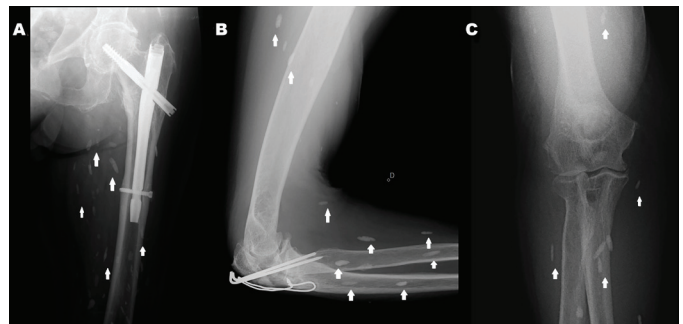


Figure 3: Superior and inferior limb involvement of cysticercosis; 3A: Left thigh; 3B–C: right elbow.

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in developing countries, it is currently a rare disease in Europe, although it has become more prevalent due to increased travel and immigration [2]. It is caused by the presence of *Taenia solium* parasite in its larval stage in tissue of intermediate hosts (pork and cattle). In human cysticercosis, the man is an accidental intermediate host. Infection occurs due to fecal-oral contamination or by ingestion of inappropriate cooked and egg-contaminated food or water [1–3]. Cysticercosis can infect any tissue of the body, but the most common affected sites are central nervous system, subcutaneous tissue, eyes, and muscles [4]. Clinical features depend on the location and extent of involvement of the cyst. Muscular involvement generally does not cause any symptoms, although it can produce muscle pain, mass-like nodules and/or muscle pseudohypertrophy [1–4]. The imaging appearance depends on the status of the parasites. If cysts are calcified, radiography can demonstrate rice-like calcifications oriented in the plane of the muscle fibers [4]. Treatment of intramuscular cysticercosis depends primarily on the presence of symptoms [3]. The authors intend to highlight a rare condition, its nonspecific presentation and indolent clinical course. Therefore, diagnostic reasoning can be challenging and is often delayed and neglected, as seen in this case report. A thorough knowledge of the characteristic radiological pattern is mandatory to make a prompt and accurate diagnosis.

CONCLUSION

Cysticercosis is a tropical disease and rarely seen in immunocompetent Europeans. However, it has grown international notoriety and has become a major health concern worldwide. Infection occurs due to fecal-oral contamination or by ingestion of inappropriate cooked and egg-contaminated food or water by *Taenia solium* parasites. Only symptomatic cysts require treatment. The radiological pattern is very typical and should alert the physician to this tropical disease even in non-endemic countries.

Keywords: Cysticercosis, Intramuscular, Tropical disease

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Author Contributions

Edite Marques Mendes – Substantial contributions to Conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published
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Guarantor of Submission

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Consent Statement

Written informed consent was obtained from the patient for publication of this case report.

Conflict of Interest

Writing of the paper; and/or decision to submit for publication.

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