



INFECTIOUS DISEASES (BACTERIAL, FUNGAL, VIRAL, PARASITIC, INFESTATIONS)

CUTANEOUS PROTOTHECOSIS IN RENAL TRANSPLANT RECEPTOR, A NEW CASE DESCRIBED IN BRAZIL

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Background: Protothecosis is a rare condition caused by the aclorophylated algae of the genus *Prototheca*. In humans, protothecosis, caused mainly by *P. wickerhamii*, has three presentations: cutaneous, articular and systemic. It occurs in both immunocompetent and immunosuppressed individuals. We report a new case of protothecosis that occurred in a renal transplant recipient, the first case reported in a solid organ transplant patient in Brazil. A 60-year-old male patient, who undergone kidney transplantation 10 years ago, has noticed a nodular lesion on the right leg for 6 months with no history of previous trauma. The lesion was totally excised and the histopathological analysis showed granulomatous inflammatory infiltrate and sporangia grouped in morula-like appearance within the cytoplasm of the macrophages. The patient has been treated with fluconazole 150mg daily for a period of 3 months until complete healing of the lesion.

Observation: In the literature, only 216 cases of human protothecosis have been described in the world, of which 11 have been reported in Brazil. Between the cases of human protothecosis, there have been only 13 reports of cases in solid organ receptors, 8 in renal transplants and 1 in liver/kidney transplantation.

Histopathological examination revealed a granulomatous inflammatory infiltrate, when stained by Periodic acid-Schiff (PAS) or Grocott, sporangia inside of macrophages and free in the exudate were also observed. The main characteristic of *P. wickerhamii*, is sporangiospores with a rounded central endospore surrounded by a crown of endospores, described as similar to morula, daisy flower or raspberry.

Key message: Currently, there is no definite treatment for *Prototheca* spp infection due to the rarity of the disease. Our patient had good therapeutic response with surgical treatment and oral fluconazole, evolving with adequate healing and there was no relapse after 3 years of follow-up.

