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Patients with Kidney Transplants Who have Cryptococci Meningitis

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Editorial

The predominant clinical manifestation of cryptococcal meningitis (CM), the third most frequent cause of invasive fungal infection in solid organ transplant patients. The clinical characteristics and radiological characteristics of CM, as well as its consequences, have not yet been extensively examined in the context of kidney transplantation (KT). In 30 clinical facilities across France, we conducted a national retrospective analysis of adult patients who were diagnosed with cryptococcosis after KT between 2002 and 2020. Based on whether or whether KT patients with cryptococcosis acquired CM, we attempted to describe overall and graft survival. Brain radiological features and clinical signs of CNS involvement were evaluated [1].

Opportunistic pathogen Cryptococcus neoformans ranks as the third most frequent cause of invasive fungal infection among recipients of solid organ transplants. The most prevalent form of cryptococcosis presentation is cryptococcal meningitis (CM), with incidence rates in solid organ transplant recipients ranging from 25% to 72%. Overall, individuals with cryptococcosis have a poor prognosis with a death rate of roughly 10–25% and those with CM have an even worse prognosis with an associated mortality of about 40% [2]. The diagnosis is difficult due to the lack of identifiable symptoms and unique clinical presentations, as well as an elusive beginning, which results in considerable delays in therapeutic care.'

Cryptococcosis has not been the subject of many research, similar to invasive candidiasis, the most frequent invasive mycosis in immunocompromised hosts, in that it impairs both CNS and renal function. In relation to CM, studies on non-human immunodeficiency virus (HIV) patients have further highlighted some of the unique characteristics of cryptococcosis in this population, such as risk factors for neurological involvement, the value of plasma and/or cerebrospinal fluid (CSF) cryptococcal antigen (Ag) for prognostic evaluation and neurological complications of the illness [3]. The clinical symptoms, radiographic characteristics and laboratory results of CM have not, however, been examined in a significant cohort in this particular group.

The survival of patients with CM in comparison to those without CM was our main goal. In order to define patterns of brain damage and establish clinical linkages between them, secondary aims included the description of the radiological features of CM in this particular group. Additionally, we looked at the clinical factors that contributed to CM in KT recipients. Finally, we contrasted the kidney graft survival rates between patients with and without CM who had cryptococcosis.

A confirmed case of CM was determined in accordance with the definitions of the European Organization for Research and Treatment in Cancer and Mycoses Study Group (EORTC/MSG), which included positive Cryptococcus culture or ink smear from CSF, positive Ag in the CSF, or positive histopathological findings in brain tissue yielding 5-10 m encapsulated yeasts. Non-CM cryptococcosis refers to patients with cryptococcosis that does not affect the central nervous system (CNS). Patients were classified as non-CM if lumbar punctures or anatomopathological tissues were not reported. Lower than 135 mmol/L plasma sodium was considered hyponatremia. Twelve months following the diagnosis of cryptococcosis, the mortality rates and graft failure were assessed and examined [4].

The reason that CM is by far the most often recognised clinical state in cryptococcosis is that neurotropism is one of the most notable clinical hallmarks of pathogenic species of the genus Cryptococcus. Regardless of the underlying immunosuppressive (IS) mechanism, susceptibility to CNS infection is a characteristic of cryptococcosis that has been observed to be even more severe in non-HIV-related IS patients than in HIV-infected ones. The clinical pattern of CNS illness caused by cryptococcosis includes a wide variety of neurological symptoms, from headaches to seizures. In our study, CM was independently linked with the occurrence of at least one neurological symptom.

This is consistent with other research in HIV-negative people who reported headaches as the primary symptom, but at variable rates (24 percent to 100 percent). Given that only 58 percent of patients had fever, this leads to a deceptive clinical picture that results in dramatically delayed diagnosis, placing the patients at an increased risk of mortality and disabling neurological sequelae. In contrast to patients with cryptococcosis that is not CM, our patients with CM frequently have lengthy delays in receiving a diagnosis [5].

Previous research has demonstrated that if individuals present with clinical neurological symptoms, high blood AG titers (>1/64) can reliably predict CM. Unfortunately, the excessively large number of missing data in our study prevented a detailed analysis of the serum AG titer. Serum testing is not a replacement for clinician awareness, though and the success of this strategy depends on improved vigilance and a broad range of criteria for serum AG titer testing.

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Conflict of Interest

The author shows no conflict of interest towards this manuscript.

References

1. Devuyst, Olivier, Nine V.A.M. Knoers, Giuseppe Remuzzi and Franz Schaefer, et al. "Rare inherited kidney diseases: Challenges, opportunities and perspectives." *Lancet* 383 (2014): 1844-1859.
2. Wühl, Elke, Karlijn J. Van Stralen, Christoph Wanner and Gema Ariceta, et al. "Renal replacement therapy for rare diseases affecting the kidney: An analysis of the ERA–EDTA Registry." *Nephrol Dial Transplant* 29 (2014): iv1-iv8.
3. Vivante, Asaf and Friedhelm Hildebrandt. "Exploring the genetic basis of early-onset chronic kidney disease." *Nat Rev Nephrol* 12 (2016): 133-146.

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4. Ingelfinger, Julie R., Franz Schaefer and Kamyar Kalantar-Zadeh. "Averting the legacy of kidney disease-focus on childhood." *Brazilian J Nephrol* 38 (2016): 2-8.

5. Groopman, Emily E., Hila Milo Rasouly and Ali G. Gharavi. "Genomic medicine for kidney disease." *Nat Rev Nephrol* 14 (2018): 83-104.

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