Nocardiosis - A clinicoepidemiological profile over 10 years

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Background: Nocardiosis is a clinical and diagnostic challenge, compounded by lacunae in existing literature. Our objectives were to establish the clinical spectrum of this disease in our setting, describe the most common causative agent of the disease and to ascertain differences in our patient population from available data.

Methods & Materials: This was a 10-year (2004-2013) retrospective study carried out at a tertiary care centre in South India, of 131 cases of nocardiosis. The electronic medical records were studied and data analysed.

Results: Sixty three percent were male, 23% of all in the sixth decade of life. The most common sites of infection were the skin and the eye -36 (27%) patients each and the lower respiratory tract -35 patients (26%). 48 (37%) patients were on immunosuppressant therapy, either a triple drug therapy following renal transplant, autoimmune disorders/haematological malignancies on combination immunosuppressants or patients on prolonged corticosteroids. Of 36 patients with nocardiosis of the eye, 30 (83%) were corneal ulcers with history of trauma with vegetative matter or soil, and 5 (14%) were endophthalmitis following intraocular lens implantation. 16 (46%) patients with respiratory tract nocardiosis had a previous lung pathology. 11 (8%) were HIV associated nocardiosis. Disseminated disease was seen in 7 (5.3%) patients following renal transplant and in 3 (2.3%) patients with STE, all on triple drug immunosuppression. The most common organism isolated was Nocardia asteroides in 73 (56%), followed by Nocardia brasiliensis in 27 (21%), Nocardia farcinica in 2 (1.5%). All patients responded to treatment with cotrimoxazole alone or in addition to surgical debridement for cutaneous and subcutaneous lesions. There was only one Nocardiosis related death in this cohort of patients. Antimicrobial susceptibility testing performed on 72 isolates showed 6.9%, 9.7%, 31%, 38%, 75%, 42%, 31%, 74% susceptibility to penicillin, ampicillin, erythromycin, tetracycline, cotrimoxazole, chloramphenicol, cefazolin and triple sulfa respectively.

Conclusion: We report a predominance of nocardiosis from the eye and nocardiosis following immunosuppression. The most common species isolated was N. asteroides. A paucity in HIV associated nocardiosis is striking. Antimicrobial susceptibility showed 75% susceptibility to cotrimoxazole, the drug of choice, which was reflected by a good response to therapy in this cohort.

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