

Acute thyroiditis due to nocardia associated to thyrotoxicosis

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Introduction

Acute thyroiditis is an uncommon condition that, exceptionally, presents with thyrotoxicosis. Differential diagnosis mainly includes subacute thyroiditis. *Nocardia asteroides* is an opportunistic pathogen, with the majority of infections occurring in immunocompromised patients, as the delay in diagnosis due to negative blood cultures makes it potentially lethal. We present a case of acute thyroiditis due to *Nocardia* that presents with thyrotoxicosis in a patient with diabetic nephropathy that received a kidney cadaveric transplant.

Case report

A 44-year-old woman with diabetic nephropathy had a cadaveric renal transplant. About 3 months later, she presented neck pain accompanied by fever, dysphagia, enlargement of thyroid gland and thyrotoxicosis. These findings together with image tests were consistent with subacute thyroiditis. However, worsening of symptoms despite usual treatment and the finding of an abscess in the ultrasonography study made us formulate the possibility of an acute thyroiditis. Fine-needle aspiration of the abscess and drainage were performed and *Nocardia asteroides* was isolated in the fluid culture. Due to persistence of abscess, in spite of drainage and specific antibiotic therapy, surgical thyroidectomy was performed.

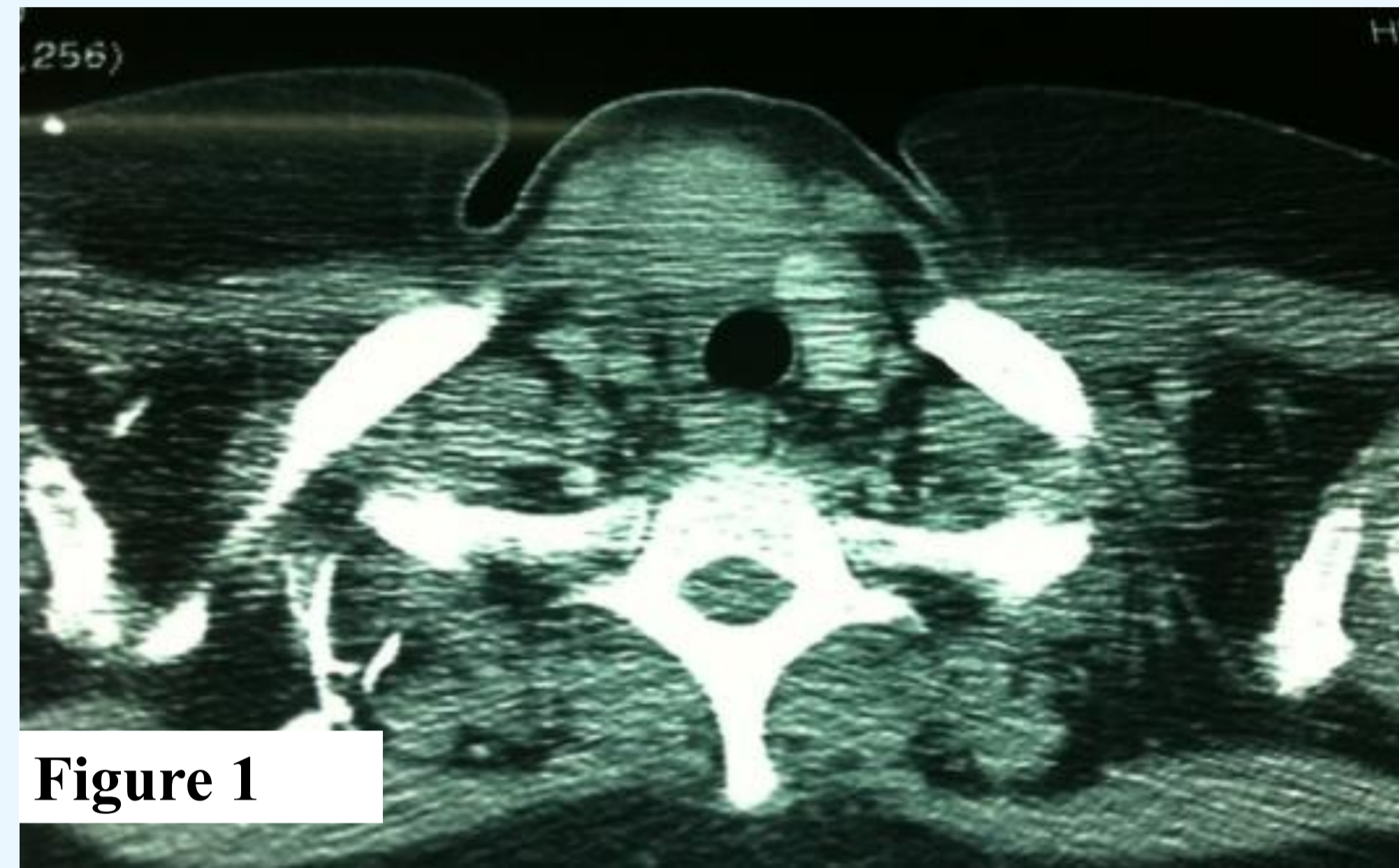


Figure 1. Computed tomography scan showed fluid collection in right thyroid lobe.

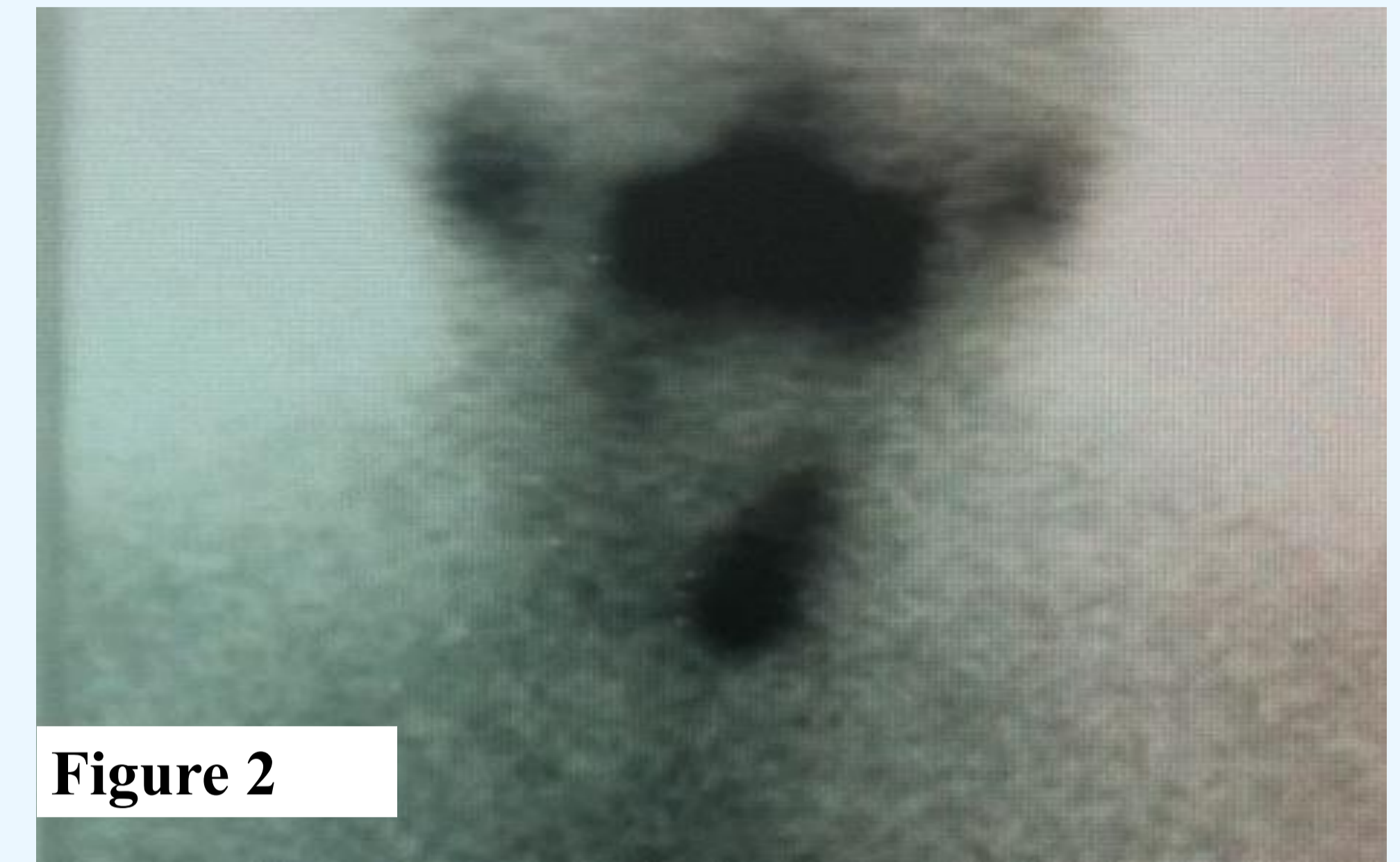


Figure 2. Scintigraphy showed complete absence of uptake in the right and low uptake in the left thyroid lobe.

Case rept	Patient (age)	Risk factors	Extrathyroid sites infection	Treatment	Outcome	Thyroid dysfunction
Lewin SR (1993)	Female (20)	Systemic lupus erythematosus Treatment with cyclofosfamide and prednisolone	Lung	Flucloxaciline, penicillin and metronidazol. Percutaneous drainage TMP-SMZ	Recovery	No
Carriere C (1999)	Male (58)	Liver-kidney transplantation Treatment with corticosteroids, azathioprine and ATG/ tacrolimus Multinodular goiter	Pleura, lung, percardium, kidney	Imipenem and amikacin. Surgical drainage Amoxicillin/clavulanate. TMP-SMZ	Recovery	No
Leong KP (2000)	Female (46)	Systemic lupus erythematosus Treatment with cyclofosfamide and prednisolone	Lung	Ceftriaxone. Percutaneous drainage TMP-SMZ	Exitus	No
Severo CB (2005)	Male (75)	Multiple myeloma Protracted treatment with prednisone	Pleura, lung, heart, kidney, central nervous system, bone, soft tissue	Ceftriaxone. Percutaneous drainage TMP-SMZ	Exitus	No
Indumathi VA (2007)	Male (67)	Diabetes. Still's disease, vasculitis. Treatment with corticosteroids	Lung, central nervous system, mediastinum, pancreas	Meropenem and amikacin. Percutaneous drainage. TMP-SMZ	Exitus	No
Su BA (2011)	Female (70)	Chronic obstructive pulmonary disease Multinodular goiter Treatment with prednisolone	Lung, brain	Amoxicillin/ clavulanate and gentamicin Percutaneous drainage. TMP-SMZ	Recovery	No
Teckie G (2014)	Female (38)	AIDS	Lung	Antibiotics unspecified Surgical drainage	Recovery	Yes
Our case	Female (44)	Diabetes. Kidney transplantation Treatment with corticosteroids, tacrolimus, mycophenolate mofetil and ATG Central venous catheter	Lung	Piperazine- tazobactam TMP-SMZ Percutaneous drainage. Total thyroidectomy	Recovery	Yes

ATG: antithymocyte globulin

TMP-SMZ: trimethoprim-sulfamethoxazol

Table 1. Clinical characteristics and outcomes of published cases of patients with thyroiditis due to Nocardia

Conclusions

Acute thyroiditis due to *Nocardia* is exceptional, with only seven published cases in the literature, and only one of them presenting with thyrotoxicosis. This is the second known case of *Nocardia* thyroiditis in a patient with a solid transplant organ, the rest being in patients under corticosteroids treatment. Nocardiosis is typically regarded as an opportunistic infection occurring in immunocompromised hosts and it should be taken into account in these patients.

References

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