

University of Groningen

Sarcoidosis of the parotid glands in Heerfordt's syndrome

Dekker ,den, M.A.M.; Vegt, van der, B.; Noordzij, Walter

Published in:
 Tijdschrift voor Nucleaire Geneeskunde

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
 Publisher's PDF, also known as Version of record

Publication date:
 2019

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Dekker ,den, M. A. M., Vegt, van der, B., & Noordzij, W. (2019). Sarcoidosis of the parotid glands in Heerfordt's syndrome. *Tijdschrift voor Nucleaire Geneeskunde*, 41(1), 2171-2172.
<https://www.tijdschriftvoornucleairegeneeskunde.nl/uitgaven?articlePage=8>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Sarcoidosis of the parotid glands in Heerfordt's syndrome

M.A.M. den Dekker, MD, PhD¹; B. van der Vegt, MD, PhD²; W. Noordzij, MD, PhD³

Departments of ¹Radiology, ²Pathology and ³Nuclear Medicine and Molecular Imaging, University Medical Centre Groningen

Abstract

A patient with complaints of joint pain, fever, fatigue, bilateral facial paralysis, dry eyes and enlarged lymph nodes showed increased uptake on ¹⁸F-FDG PET/CT in the lymph nodes as well as intense increased uptake in the parotid glands.

Pattern of uptake in the lymph nodes was typical for sarcoidosis, but the uptake in the parotid glands was not. To confirm a

possible Heerfordt's syndrome, incision biopsy of the right parotid gland was performed. This revealed non-necrotising epithelioid granulomatous infection of the sarcoid type, confirming Heerfordt's syndrome.

A 41-year old patient was referred for an ¹⁸F-FDG PET/CT because of joint pain, fever, fatigue, bilateral facial paralysis, dry eyes and swollen glands. He had been suffering from these

complaints for approximately three months. Prior MRI brain and lumbar puncture showed leukoaraiosis, but no signs of tumour or infection. ¹⁸F-FDG PET/CT (figure 1) showed increased, intense uptake in multiple mediastinal and hilar lymph nodes, as well as supraclavicular and para-aortal lymph nodes. Furthermore, there was an increased, intense uptake in the parotid glands. CT scan was consistent with the ¹⁸F-FDG PET/CT, and confirmed enlarged cervical, mediastinal, hilar, and para-aortal

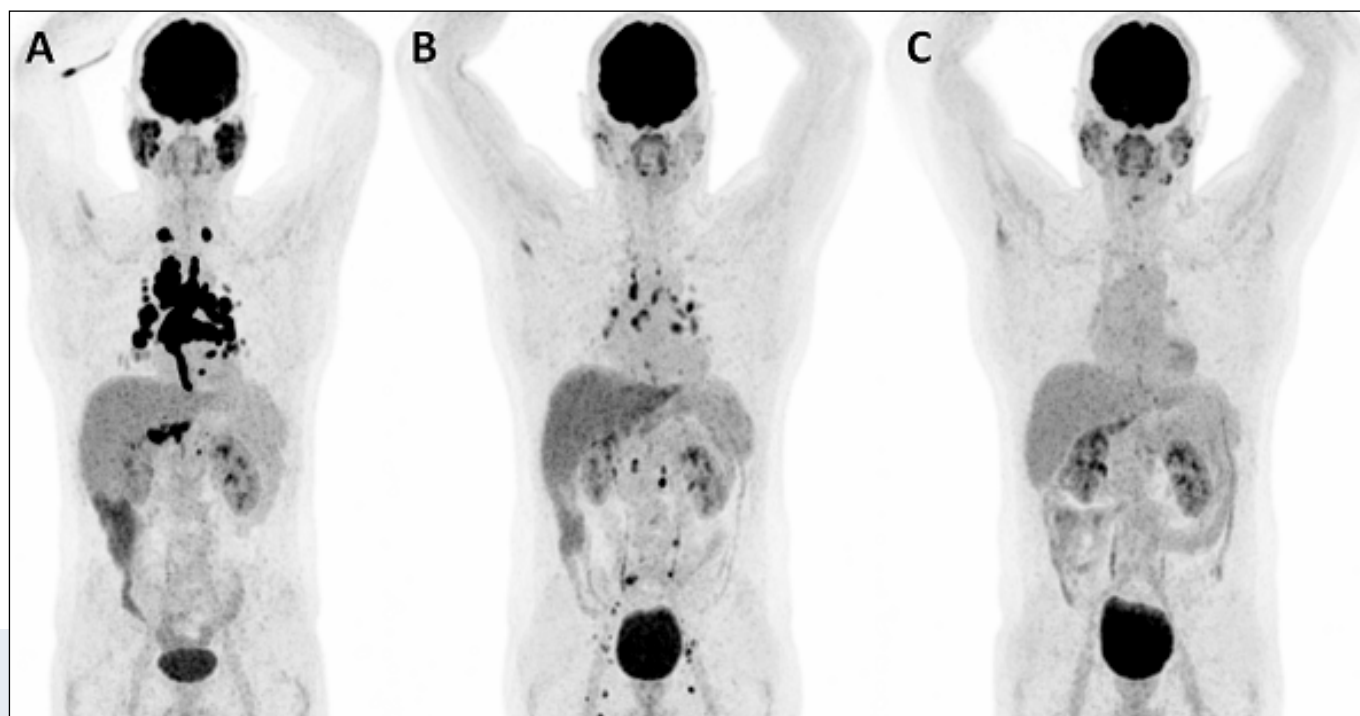


Figure 1. Anterior ¹⁸F-FDG PET maximum intensity projection, showing pathological uptake in parotid salivary glands and lymph nodes in supraclavicular, mediastinal, lung hilum and retroperitoneal stations (A). Follow-up after one year, showing normalised uptake in the parotid salivary glands and significant decrease in uptake in the lymph nodes (B). Follow-up after two years, showing a relapsed uptake in the parotid salivary glands (C).

lymph nodes, and heterogeneous enlargement of the parotid glands. The distribution and increased uptake in lymph nodes is typical for sarcoidosis. However, increased ^{18}F -FDG uptake in the parotid glands is not a common finding. A possible explanation for increased parotid gland accumulation is Heerfordt's syndrome (1,2). However, lymphoma should also be in the differential diagnosis. This patient underwent an incision biopsy of the right parotid gland to determine the nature of the ^{18}F -FDG accumulation. Histopathologic analysis (figure 2) revealed a non-necrotising epithelioid granulomatous infection of the sarcoid type, thereby confirming the diagnosis sarcoidosis, specifically Heerfordt's syndrome. Furthermore, the ophthalmologist was consulted and ascertained small retinal infiltrations in his left eye.

Afterwards, this patient was treated with high-dose prednisolone, resulting in a decrease in - but no normalisation of - the parotid gland and lymph node uptake. At follow-up by the ophthalmologist, retinal infiltrates had vanished completely. Two years after his initial presentation, this patient's follow-up ^{18}F -FDG PET/CT showed an increased uptake in parotid glands and cervical lymph nodes again, indicating a flare-up of the sarcoidosis. Since he did not suffer from any complaints at that time, low-dose prednisolone was continued. Heerfordt's syndrome is a rare manifestation of sarcoidosis, and is present in approximately 0.3% of all patients presenting with sarcoidosis. Patients usually suffer from uveitis, swelling of the parotid glands and palsy of the facial nerve, on top of the clinical signs of sarcoidosis (cough, dyspnoea, chest pain, fever,

weight loss, joint pain and erythema nodosum). This rare, yet typical distribution pattern is seldom seen on ^{18}F -FDG PET/CT.

m.a.m.dekker@umcg.nl ♦

References

1. Fischer T, Filimonow S, Petersein J, et al. Diagnosis of Heerfordt's syndrome by state-of-the-art ultrasound in combination with parotid biopsy: a case report. *Eur Radiol.* 2002;12:134-7

2. Chappity P, Kumar R, Sahoo AK. Heerfordt's Syndrome Presenting with Recurrent Facial Nerve Palsy: Case report and 10-year literature review. *Sultan Qaboos Univ Med J.* 2015;15:e124-8

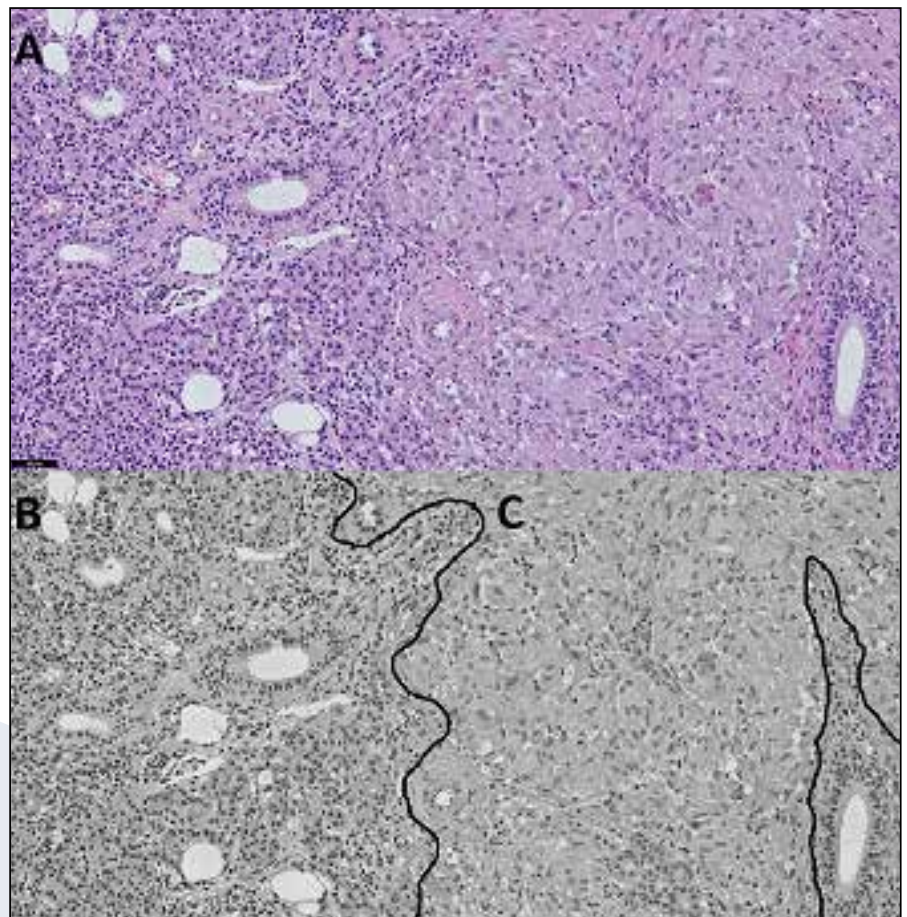


Figure 2. Microscopy image of the parotid gland biopsy (A) at 20x magnification, with normal parotid gland tissue (B) demarcated by the non-necrotising sarcoid type granuloma (C).