

Table 1. Characteristics of included studies – Imaging to monitor treatment response

Study	Participants (number, age, other important characteristics)	Comparison	Follow-up	Outcome measures	Comments	Risk of bias (per outcome measure)*
<i>Individual studies</i>						
Shavit, 2018	<p>Type of study: Retrospective analysis.</p> <p>N at baseline Intervention: 12 Control: 12</p> <p>Mean age was 74 ± 11.5; 10 patients (83%) were male; 10 (83%)</p> <p>After average 16 month follow-up, patients remained free from disease.</p> <p>Mean duration of treatment was 61 days \pm 44.</p>	<p>For treatment response: The second scan demonstrated no FDG uptake in four patients and substantially reduced FDG uptake in three patients. Hence, treatment was stopped for all seven patients. One patient had significant FDG uptake. The patient completed a second 6-week course of antibiotic treatment until a third scan demonstrated no FDG uptake</p>	<p>Mean follow-up was 16 ± 15 months.</p> <p>Two patients died before the second PET/CT while still treated with antibiotics for active osteomyelitis</p> <p>Two patients were lost to follow-up and did not complete the second scan</p>	Remission	-	Risk of bias for remission in selection and index test

	The maximum was 192 days.					
Kulkarni, 2020	<p>Type of study: Retrospective analysis.</p> <p><u>Inclusion criteria:</u> Patients referred for FDG-PET/CT imaging for suspected skull base osteomyelitis.</p> <p><u>Exclusion criteria:</u> Known malignancy (1); Loss for follow up (2); Incomplete data (3)</p> <p>N total at baseline: 83 patients were originally included. 6 were excluded. Of the 77 remaining cases, 56 patients also underwent a MRI.</p> <p>Intervention: 56</p>	<p>For follow up analysis:</p> <p>Intervention: 23 (42.8%) patients had imaging follow up with FDG-PET/CT</p> <p>Referral: 54 (57.2%) only had clinical follow up.</p> <p>No recurrence of disease or length of treatment was specified.</p> <p>Regarding treatment response. Of the 23 patients with follow up FDG-PET/CT, 14 showed progression of disease and 9 regression. The FDG-PET/CT scan predicted this correctly, according to later clinical findings. (other numbers or not specified.</p>	<p>The patients were followed in intervals after a duration of 52 ± 9 days.</p> <p>Total follow up was not specified.</p>	Remission	<p>No specification of underlying origin of disease (only SBO, not only NOE)</p> <p>No recurrence of disease or length of treatment was specified.</p> <p>Regarding treatment response. Of the 23 patients with follow up FDG-PET/CT, 14 showed progression of disease and 7 regression. The FDG-PET/CT scan predicted this correctly, according to later clinical findings. (other numbers not specified.)</p>	When reporting remission, there was risk of Bias for selection and reporting

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Guideline Necrotizing otitis externa – skull base osteomyelitis 2025

	<p>Control: 77</p> <p>Important prognostic factors:</p> <p><i>male:female = 56:21; mean age 66.4 ± 9.4 years; range 45–92 years</i></p> <p>Groups were comparable at baseline.</p>	<p>Progression or regression of disease was seen as a increase or decrease respectively in SUVmax,.</p>				
Vosbeek, 2023	<p>Type of study: Retrospective analysis.</p> <p>N at baseline</p> <p>Intervention: 24</p> <p>Important prognostic factors:</p> <p>Mean age was 75 (43–91) years</p> <p>20 (83%) were male.</p> <p>20 were diabetic (83%)</p>	<p>In 20 cases imaging was used to define treatment response and cessation of treatment. They were divided in groups (zie Comments).</p> <p>Regarding FDG-PET/CT: (other patients had gallium scans)</p> <p>Group 1: 5/5 remission</p> <p>Group 2: 1/1 remission</p> <p>Group 3: 2/1 remission</p>	<p>The mean duration of follow-up after cessation of IV therapy in the group of cases who achieved remission was 39 months (range 3–83 months; n = 21). For 2 patients, no follow-up time after cessation of therapy was reported since they died outside of the hospital and the date of death was unknown. 1 patient died of another cause before remission was achieved.</p>	Remission	<p>Patients were divided in 3 groups: 1 group where resolution of signs of active inflammation on imaging was the cessation point of systemic antibiotic and/or antifungal therapy (n = 9), 1 group where near resolution of active inflammation on imaging was used as the cessation point (n = 3), and a group where other reasons for cessation of therapy were noted while there was no complete resolution on imaging (n = 8)</p>	<p>When reporting remission, there was risk of Bias for selection and reporting</p>

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Thanneru, 2024	<p>Type of study: prospective cohort study</p> <p>N at baseline</p> <p>Intervention: 28</p> <p>Control: 28 (same patients)</p> <p>Patients characteristics were not described</p>	<p>All patients underwent a FDG-PET/CT (28).</p> <p>20 patients underwent a scan when cured.</p> <p>The patient was considered clinically cured of the disease when asymptomatic status was maintained without any appearance of new signs of the disease for a minimum of three weeks.</p> <p>8 patients with active disease were also scanned, however the specifics at what time and phase of disease this was performed was not mentioned.</p>	median follow up time of 20 months. Spread was not described	Remission		When reporting remission, there was risk of Bias for selection and reporting

**For further details, see risk of bias table in the appendix*