

## Nasal mucosal thickening simulating a tumor: Potential for misdiagnosis in brain perfusion imaging

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A 33-year-old, female presenting with dementia was admitted to our institution. Except for slight muscle atrophy noted on both lower extremities there were no other significant physical signs or laboratory findings. Since initial Tc-99m-HMPAO SPECT showed hypoperfusion on both temporal, parietal and occipital lobes, follow up study with the same radiotracer was done. Increase in uptake was noted in the left side of the face. There was no abnormality noted on ENT examination. CT scan and MRI showed slight nasal mucosal wall thickening. Tl-201 SPECT showed increased uptake in the nasal area. The increase in uptake could be due to nasal mucosal thickening. This could simulate nasal tumor and interfere in determining ROI for brain perfusion studies.

**Key words:** brain perfusion, nasal mucosal thickening, SPECT and Tc-99m HMPAO