

Florzolotau PET in PSP: visual read method and its clinical diagnostic utilities



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Saturday-AIC-093
aaic2026.15992557

Core Take-Home Message: Florzolotau PET accurately rules in or rules out PSP (81% sensitivity, 97% specificity), revises diagnoses in ~1/3 of cases, and profoundly shifts clinical confidence and treatment choices—supporting its routine use in practice.

Introduction

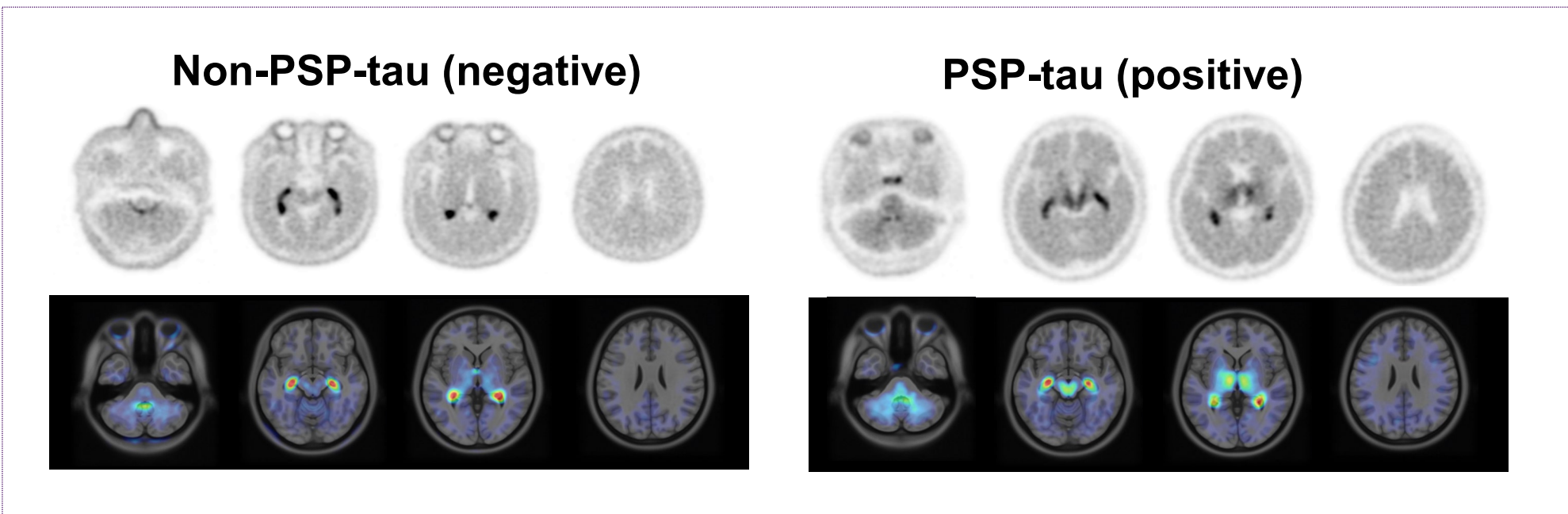
- Progressive supranuclear palsy (PSP) presents significant diagnostic challenges due to its phenotypic heterogeneity and symptomatic overlap with other neurodegenerative diseases.
- Positron emission tomography (PET) imaging with florzolotau (¹⁸F), a second-generation tau tracer, enables visualization of tau deposits in vivo, but its role in real-world clinical practice remains unclear.



- This study aimed to evaluate the diagnostic utility of florzolotau (¹⁸F) PET and its impact on therapeutic decision-making in patients with suspected PSP.

Method

- We recruited 848 patients with suspected PSP, among whom 417 had longitudinal follow-up (≥1 year).
- Florzolotau (¹⁸F) PET images were visually classified as non-PSP tau and PSP tau.



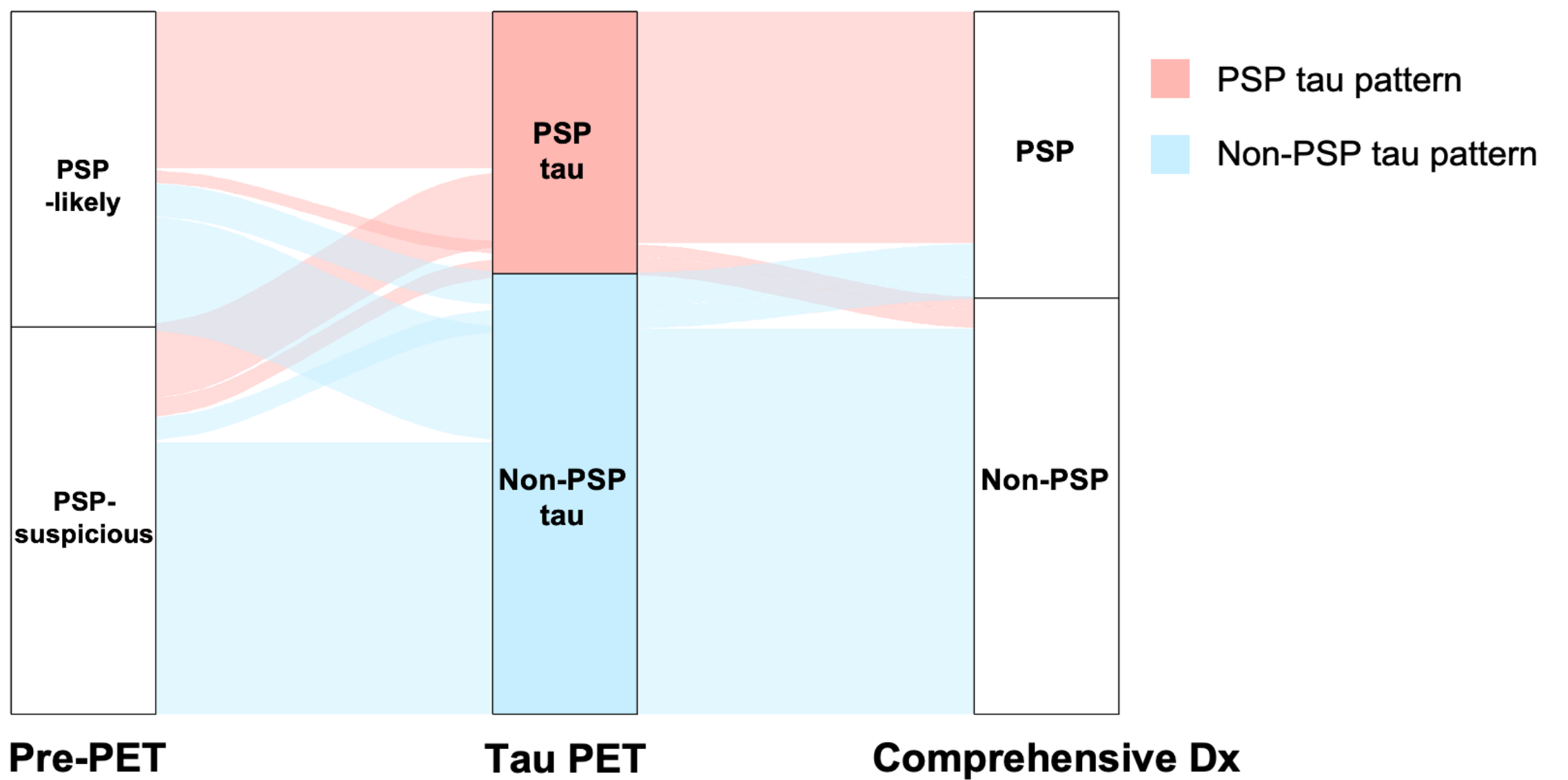
- The **diagnostic performance** of florzolotau (¹⁸F) PET visual reading, as well as its impact on **diagnostic revision**, **clinician-rated diagnostic confidence**, and **medication adjustment**, were analyzed.

Results

- Florzolotau (¹⁸F) PET demonstrated high diagnostic accuracy for PSP, with a sensitivity of 81.2% and a specificity of 96.7%.
- Integrating florzolotau (¹⁸F) PET findings into standard diagnostic work-up led to diagnostic revisions in 269 (31.7%) patients.
- A PSP tau pattern increased clinician-rated diagnostic confidence from 65.4±20.7% to 81.0±16.0% (p<0.001) and related to more prescriptions of motor symptom medications. Conversely, a non-PSP tau pattern decreased the diagnostic certainty of PSP from 47.7±25.1% to 15.4±14.5% (p<0.001).

Conclusion

This large-scale real-world study highlights the substantial clinical utility of florzolotau (¹⁸F) PET in enhancing diagnostic accuracy and optimizing therapeutic strategies for patients with suspected PSP, supporting its integration into routine clinical practice.



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