Na 18F PET Bone Scan

- Agent just approved by CMS (March 2010)
- More accurate than planar bone scans OR SPECT scan

Comparison to 99Tc MDP

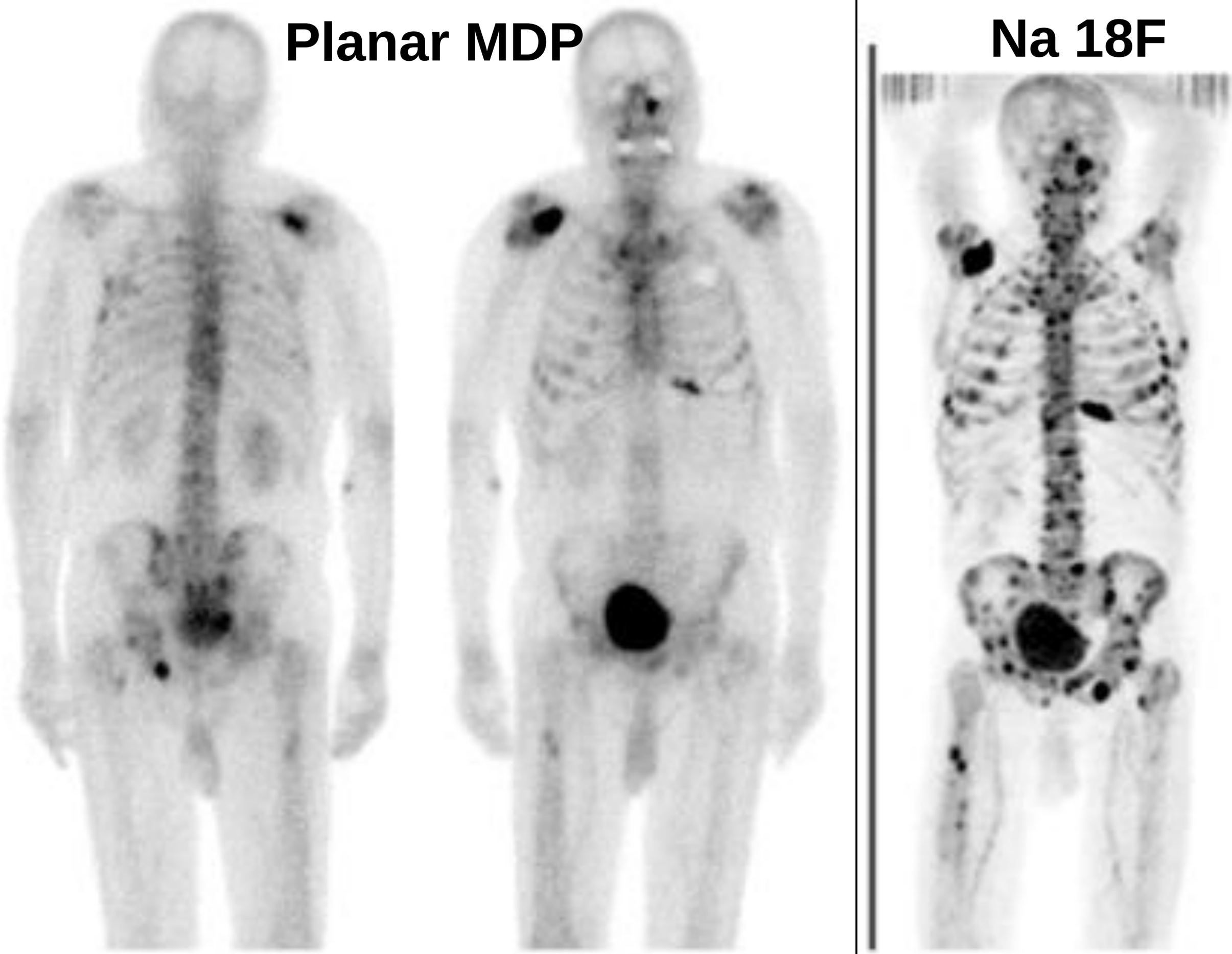
- Less protein binding
- Better first pass extraction
- So ... blood clearance much faster resulting in ...
- BETTER TARGET TO BACKGROUND RATIO
- Additionally, PET SCANNERS HAVE HIGHER RESOLUTION THAN SPECT(much better than planar bone scans which is what is done most commonly)
- LOCALIZING CT LEADS TO BETTER SPECIFICITY

Comparison to 99Tc MDP

- Similar physiology as MDP in that it is taken up by the BONE RESPONSE to tumor
- Interpretation is the same as 99mTc bone scans
- Faster than current bone scans
- Can image 15 to 30 minutes after injection
- No need for additional studies when combined with CT

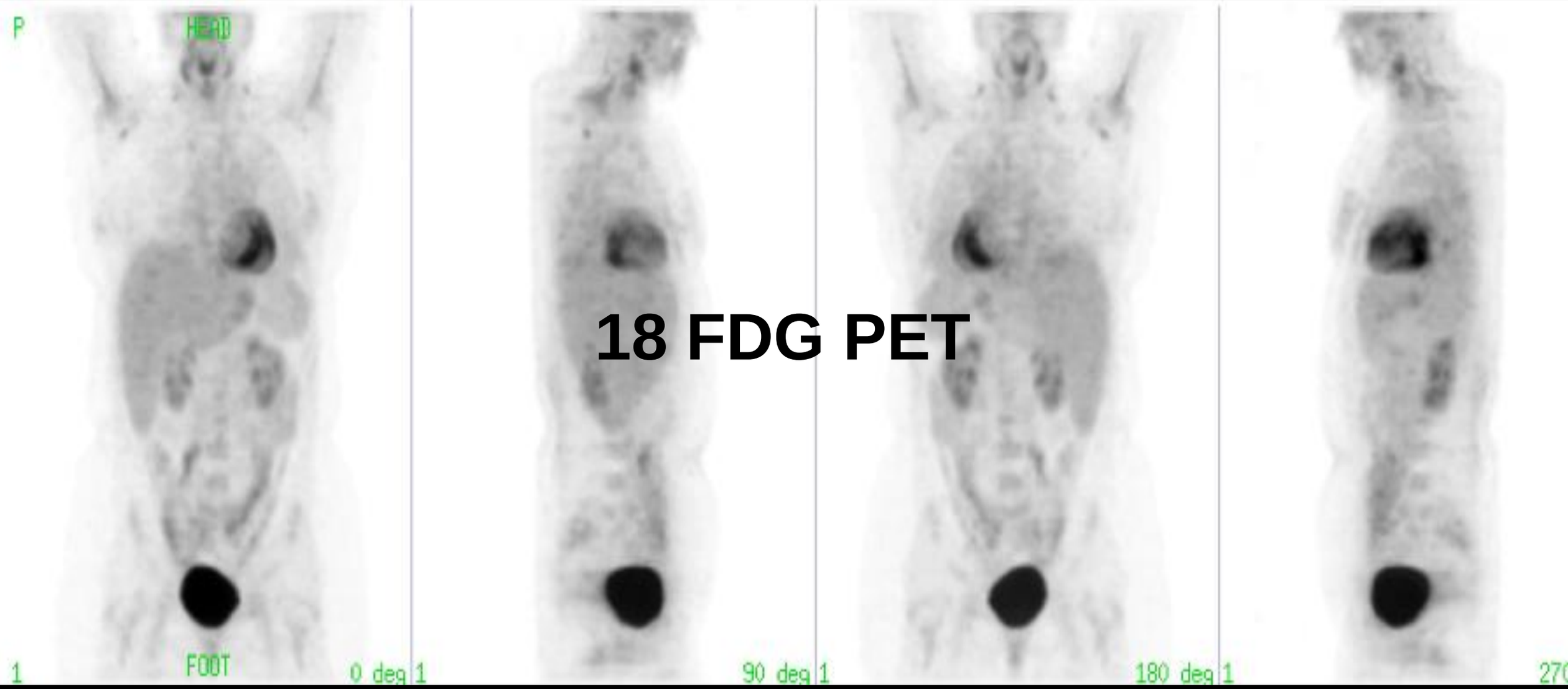
Planar MDP

Na 18F



- Will also see mets occult on FDG PET
- Particularly PROSTATE, lung, breast where there are sclerotic mets often missed on FDG PET

18 FDG PET



Same patient lung ca

Na 18F

Radiation Dose

- Na 18F in the range of 4 - 7 mSv / scan
- Very similar to 99m Tc MDP dose

Covered for the following indications through NOPR

1) Diagnosis of metastatic disease without a pathological proven diagnosis of cancer

2) Suspected new osseous metastasis

3) Suspected progression of known osseous metastasis

4) Monitoring treatment response for person with known osseous metastasis

NOPR

- National Oncologic Pet Registry
- Requires registering pt and sending to approved center (AMI)
- Forms are straight forward but are needed for reimbursement at this time
- We can help educate staff on how to quickly fill out forms

Summary

- Better bone scanning method than 99Tc MDP
- Covered for Medicare patients under research protocol (NOPR)
- Currently should be used for Medicare patients in place of traditional bone scan for more accuracy and sensitivity
- Will need to register patient to be reimbursed (easy)
- WILL identify more mets and (more importantly) more PATIENTS with mets