LETTER TO THE EDITOR

Correlation between DPD soft tissue uptake and polyneuropathy in ATTR amyloidosis

We read with great interest the publication by Wollenweber and co-workers on the detection of patients with cardiac transthyretin amyloidosis (ATTR) at risk for polyneuropathy (PNP) due to increased 99mTc-labelled-3,3-diphospono-1,2-propanodicarboxylic acid (DPD) soft tissue (ST) uptake.[1]

In this study, higher Perugini grades were noted in ATTR patients (41 × wtATTR, 9 × hATTR) with PNP compared to those without. This was further confirmed on SPECT/CT, which revealed significantly increased DPD uptake in the subcutaneous fat of the axillary region in patients with compared to patients without PNP.[1] A previous study by Hutt et al., however, demonstrated that planar ST uptake in ATTR was predominantly localised within the muscle on SPECT/CT. This pattern was characteristic for wtATTR.[2] In the study by Wollenweber et al., significant correlation between Perugini grading and PNP was shown in the wtATTR cohort once patients with diabetes mellitus were excluded. However, SPECT/CT subgroup analysis did not reveal differences between patients with or without PNP.[1] It is conceivable, that the planar finding was attributed to additional muscular DPD uptake in wtATTR, indicating the concomitant presence of amyloid myopathy and PNP. This is corroborated by the fact that amyloid myopathy and PNP often coexist in ATTR. Similarly, individual ATTR cases with cardiac, muscular, neurological involvement and increased DPD ST uptake have previously been reported, in which biopsy revealed amyloid deposition in the skeletal muscle and surrounding adipose tissue.[3] It would therefore be important to know whether in the study by Wollenweber et al. muscular DPD uptake on SPECT/CT was present in the wtATTR cohort.[1]

Conclusively, we advise caution in ascribing planar ST uptake exclusively to neurological manifestations, given the possibility of additional muscular involvement that could be causative for planar ST uptake. Additional SPECT/CT imaging is therefore strongly recommended.

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