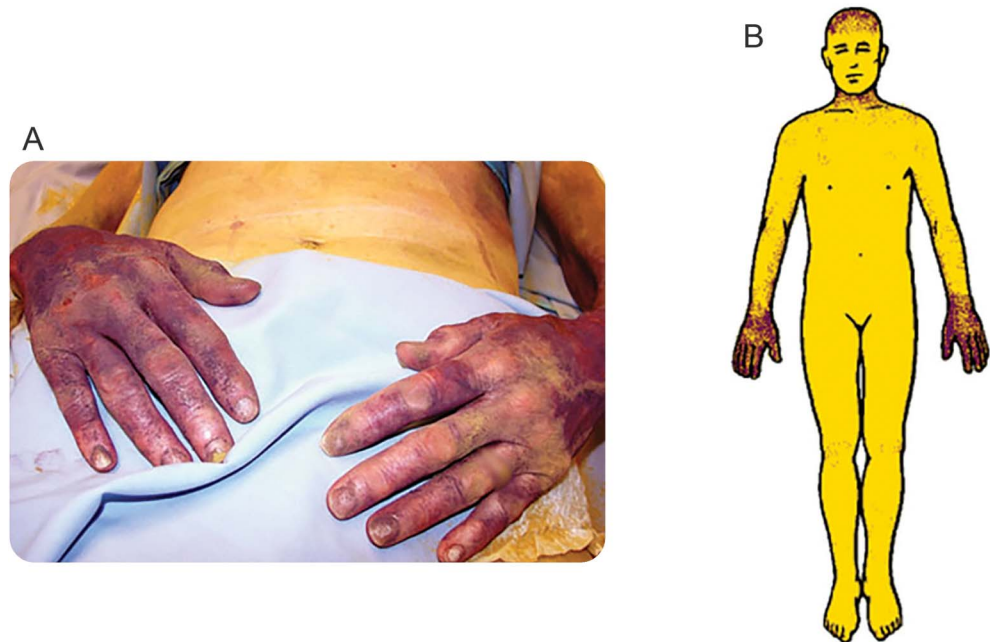


Purple hands in multiple system atrophy

Global anhidrosis with preserved acral sweating

Figure Global anhidrosis with preserved sweating over the hands on thermoregulatory sweat test



Sweating is shown in purple by the alizarin indicator powder, which was spread evenly over the exposed body surface. Sweating was present over the hands (A) with sparse areas of preserved sweating on the neck and forehead shown in the digitized image (B). Calculated body surface anhidrosis was 94%.

A patient developed parkinsonism at age 60 years followed by autonomic involvement with orthostatic hypotension and urinary incontinence, consistent with multiple system atrophy (MSA). Quantitative sudomotor axon reflex test revealed intact postganglionic sudomotor function, while thermoregulatory sweat test (figure) showed global anhidrosis, indicating a preganglionic/central lesion of sudomotor pathways consistent with MSA.¹ Acral sweating was preserved.

Global anhidrosis with acral sparing is a thermoregulatory sweat pattern observed in MSA. The purple hands may be akin to the cold hands sign in MSA.² Mechanistically, this could indicate selective preservation of sympathetic pathways, greater sweat gland density, or denervation supersensitivity affecting the hands.

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