Teaching NeuroImages:

A protruding asymmetrical belly

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Figure 1 Asymmetrical protruding belly, MRI of the lower legs, and muscle biopsy of the tibial anterior muscle

(A, B) Asymmetrical protruding belly in standing position. (C) Transverse CT scan of the abdomen shows atrophy of the right abdominal muscles with protrusion of the intestines (arrow). (D) T1-weighted MRI scan of the lower legs with fatty infiltration of the tibial anterior muscles (arrow). (E) Hematoxylin & eosin muscle specimen of the right tibial anterior muscle shows inflammation between the muscle fibers (arrow, $\times 10$ magnification).

A 52-year-old healthy woman presented with discomfort during running activities due to a protruding belly (figure 1, A and B). She was seen by a surgeon who performed a CT of the abdomen showing atrophy of the right abdominal muscles (figure 1C). Subsequently muscle MRI revealed fatty changes of the anterior tibial muscles (figure 1D) with inflammation in the muscle biopsy

(figure 1E). In retrospect, she had minimal weakness of eye closure; mouth closure was symmetric but showed slight asymmetry when pressing the lips (supplemental data e-1 and figure e-1 at Neurology.org). DNA analysis showed a D4Z4 repeat array contraction to 4 repeat units on chromosome 4qA, confirming facioscapulohumeral dystrophy (FSHD). Asymmetrical weakness of

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abdominal muscles is uncommon, but can be the presenting symptom of FSHD.^{1,2}

AUTHOR CONTRIBUTIONS

Dr. Straathof: study concept and design, acquisition of the data, drafting/ revising the manuscript for content. Dr. Badrising: drafting/ revising the manuscript for content.

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REFERENCES

1. Tawil R, Kissel JT, Heatwole C, Pandya S, Gronseth G, Benatar M. Evidence-based guideline summary: evaluation, diagnosis, and management of facioscapulohumeral muscular dystrophy: report of the Guideline Development, Dissemination, and Implementation Subcommittee of the American Academy of Neurology and the Practice Issues Review Panel of the American Association of Neuromuscular & Electrodiagnostic Medicine. *Neurology* 2015;85: 357–364.
2. Mul K, Lasse S, Voermans NC, Padberg GW, Horlings CG, van Engelen BG. What's in a name? The clinical features of facioscapulohumeral muscular dystrophy. *Pract Neurol* 2016;16:201–207.

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