

Images in Rheumatology

Iliopsoas Muscle Involvement due to Granulomatosis with Polyangiitis

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Swollen iliopsoas muscle has a broad differential diagnosis, including infection, neoplasm, hemorrhage, sarcoidosis, and vasculitis including granulomatosis with polyangiitis (GPA)¹.

A previously healthy 42-year-old man presented to

our clinic with 4 weeks of fever, malaise, left orbital puffiness, and low back pain. Laboratory tests showed normal renal and hepatic function and C-reactive protein (CRP) level of 7.45 mg/dL. Blood cultures were negative. There had

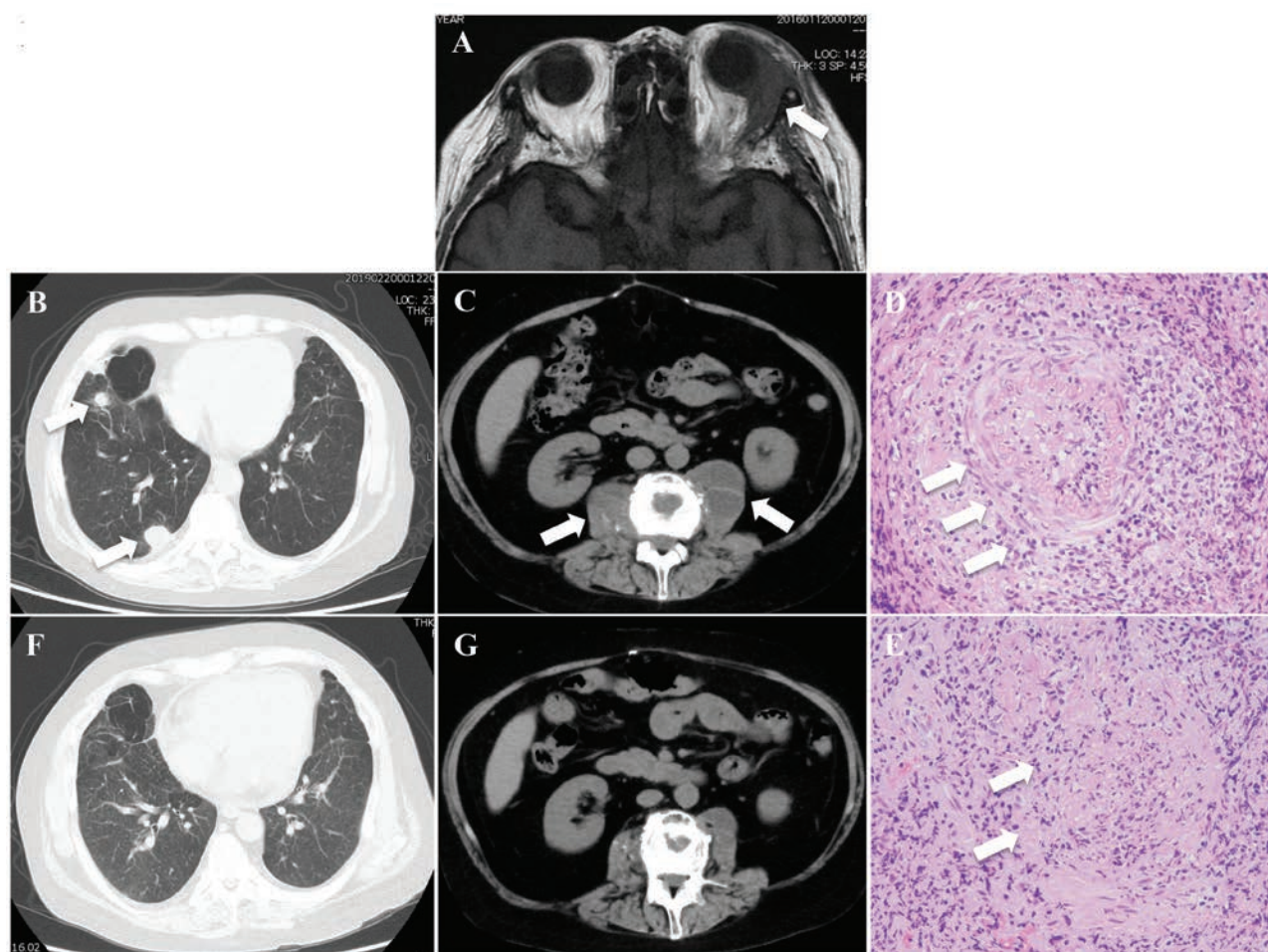


Figure 1. A. MRI findings before treatment. MRI revealed left retro-orbital mass. B. Chest CT findings before treatment. CT revealed multiple pulmonary nodules. C. Abdominal CT findings before treatment. Abdominal CT revealed nodular lesions of swollen bilateral iliopsoas muscle. D and E. Biopsy specimen from iliopsoas muscle. CT-guided needle biopsy of the iliopsoas muscle demonstrated large collections of mononuclear inflammatory cells in the walls of a small-sized artery (D) with noncaseating granuloma (E; H&E stain). F. Chest CT findings 3 months after treatment. CT revealed the elimination of multiple pulmonary nodules. G. Abdominal CT findings 3 months after treatment. Abdominal CT revealed the regression of nodular lesions of swollen bilateral iliopsoas muscle. MRI: magnetic resonance imaging; CT: computed tomography.

been no response to antibiotics. Magnetic resonance imaging and computed tomography (CT) revealed retro-orbital mass (Figure 1A), multiple pulmonary nodules (Figure 1B), and nodular lesions of swollen bilateral iliopsoas muscle (Figure 1C). Several tumor markers, angiotensin-converting enzyme levels, and tuberculin skin and T-SPOT.TB tests were all negative, but testing for proteinase 3–antineutrophil cytoplasmic antibodies (ELISA) was positive at 23.4 U/mL (normal < 3.5). CT-guided needle biopsy of the iliopsoas muscle demonstrated large collections of mononuclear inflammatory cells in the walls of a small-sized artery with non-caseating granuloma (Figure 1D and 1E). Histology showed no malignant and infectious changes. The patient was clinically diagnosed with GPA. Prednisolone was initiated, and rituximab was later added. One month after treatment, his symptoms improved and CRP level normalized to 0.01 mg/dL. Further,

pulmonary nodules and swollen iliopsoas muscle recovered completely 3 months after treatment (Figure 1F and 1G).

Although muscle involvement due to vasculitis syndrome is often seen², GPA of a muscle, especially iliopsoas muscle involvement, is quite rare. To our knowledge, this is the first reported case of GPA with iliopsoas muscle involvement. This case should remind readers to consider GPA as a cause of swollen iliopsoas muscle.

REFERENCES

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