Background and aims Myositis, especially acute myositis, is a rare manifestation of systemic lupus erythematosus (SLE). Here we report a case of acute myositis concomitant with lupus pleuritis.

Methods a case report and review of literature.

Results A 29-year-old woman with an 8 year history of SLE was admitted to our hospital because of pleuritic chest pain. Her initial diagnosis as SLE was made by malar rash, photosensitivity, oral ulcer, oligoarthritis, leukopenia and the positivity for antinuclear antibodies as well as anti-Sm. She has shown recurrent pleuritis afterwards. The Chest CT revealed bilateral pleural and pericardial effusion. Bacterial cultures and viral antibody tests were negative, and the daily dose of prednisolone was increased from 5 mg to 20 mg. Despite the improvement in the pleuritic chest pain, she developed acute myalgia with the elevated value of serum muscle enzymes, positive signals in the muscle/fascia by the ultrasound and MRI, and myopathic changes in the electromyogram examination. After the administration of intravenous steroid pulse therapy for 3 days followed by prednisolone 40 mg/day, all the myositis signs and symptoms subsided, which was also confirmed by the ultrasound.

Conclusions The present case suggests that acute myositis may develop as a manifestation of SLE exacerbation and the ultrasound evaluation may be useful in the diagnosis and the follow-up of myositis.