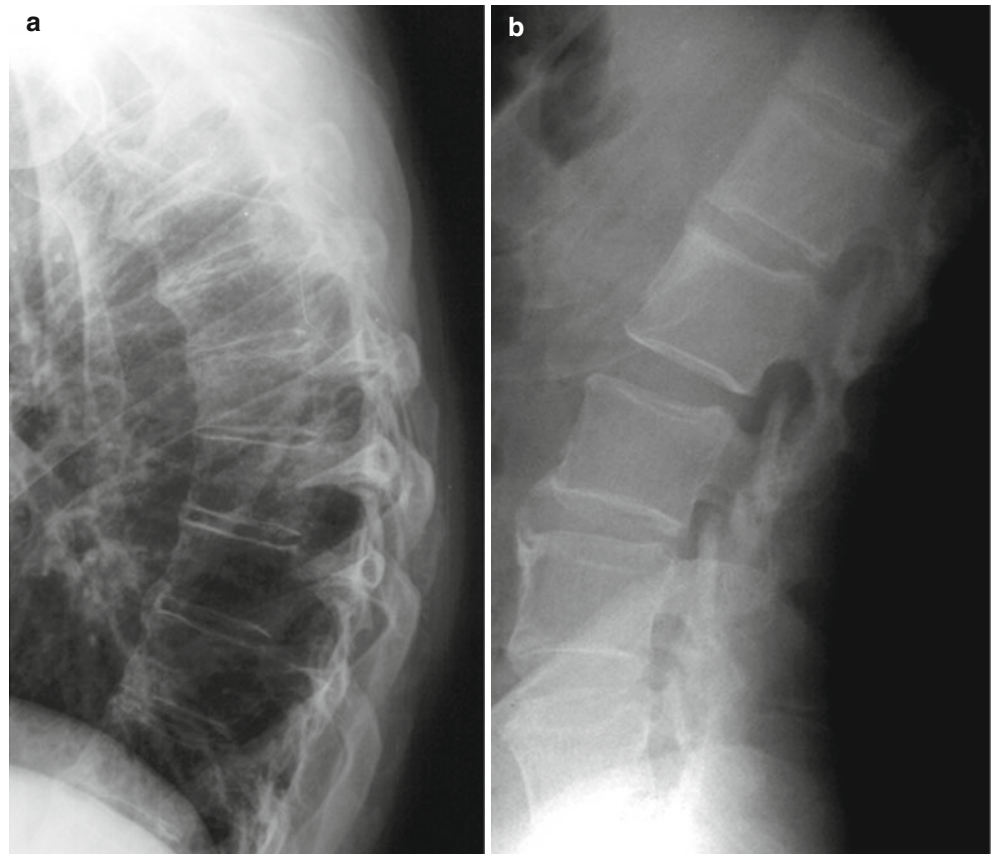


Spondylitis in Acute and Chronic Phases

- A 37-year-old patient
- A family history of SpA
- Dorsal and lumbar pain during the night for more than 2 years
- Morning stiffness and limitation of motion of the spine in the frontal and lateral planes
- Limitation of chest expansion

Fig. 1 X-ray of thoracic and lumbar spine. Lateral thoracic X-ray shows marginal anterior osteophytosis in the upper spine (**a**); lateral lumbar X-ray shows erosion of the anterior corner of L4 with a marginal osteophytosis and anterior syndesmophytosis L1–L2 (**b**)



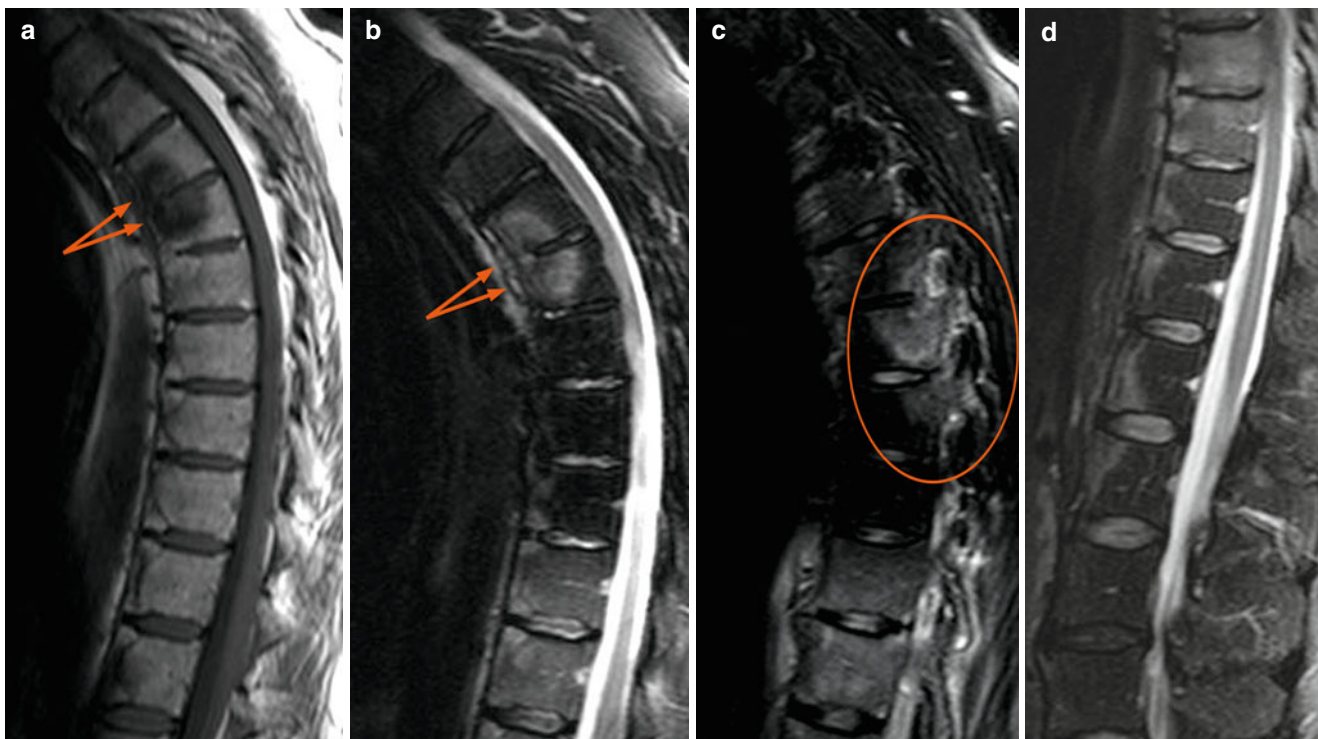


Fig. 2 Sagittal TSE T1-weighted image (a) and sagittal TSE T2-weighted images with fat saturation (b–d). The images show low signal of the T5–T6 (a, arrows) endplates and a focal fat infiltration of the vertebral corners of the thoracic spine, with ankylosis of T6–T7 and T8–T9 (a), increased sig-

nal of T5–T6 endplates (b, arrows) and some anterior corners indicating edema of bone marrow (b–d), and hyperintensity of the posterior corner and endplate of T6–T7 and zygapophyseal joints of T7–T8 and T10–T11 (c, circle)

Fig. 3 Sagittal SE T1-weighted images with fat saturation following the administration of contrast medium (**a–b**). The images show enhancement of anterior endplate of T5–T6 (**a**, *arrows*) with enhancement of anterior corners (**a**, **b**, *asterisks*) that confirms an acute inflammation of the spine



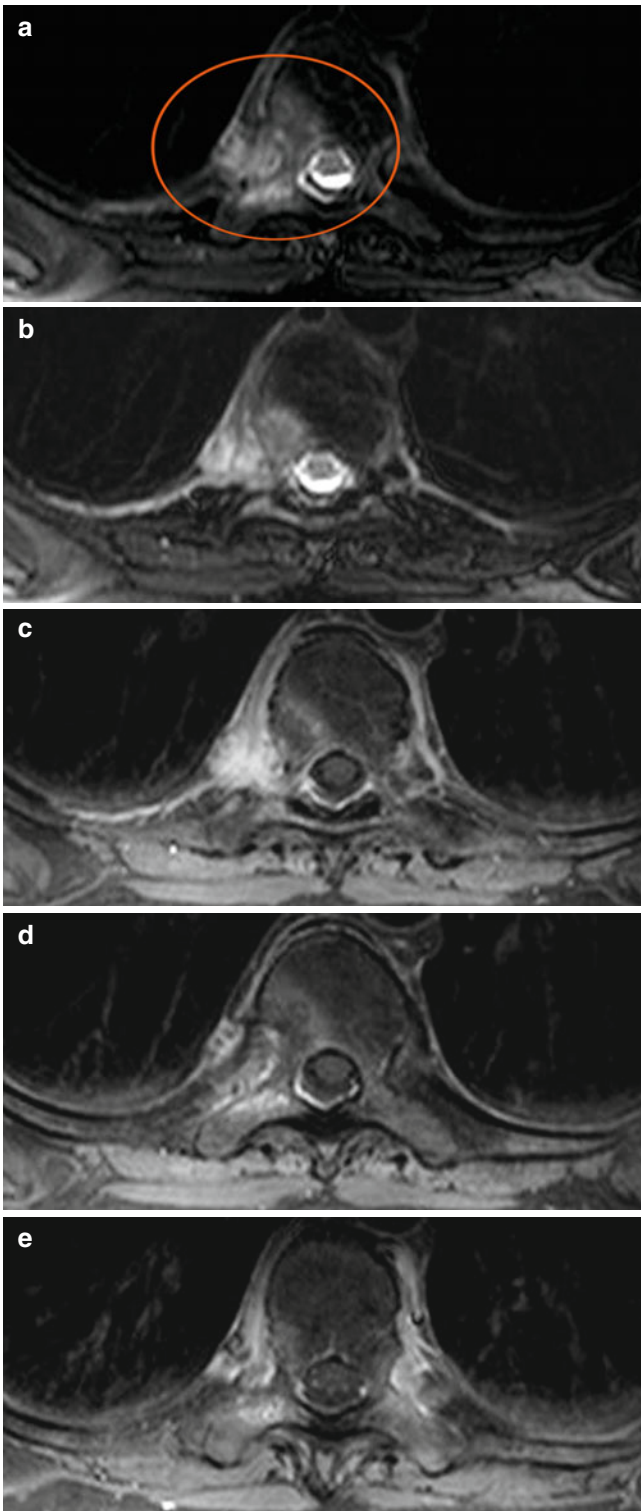


Fig. 4 Axial TSE T2-weighted images with fat saturation (**a–b**) and SE T1-weighted images with fat saturation following the administration of contrast medium (**c–e**). These images demonstrate bone marrow edema in the costovertebral joint on the right side (**a–b**, *circle*); after contrast medium administration, note enhancement of right costovertebral joint T10–T11 (osteoarthritis) (**d**) with fogosis of adjacent soft tissue (**c–e**)

Follow-up after 12 months of TNF-blocker therapy

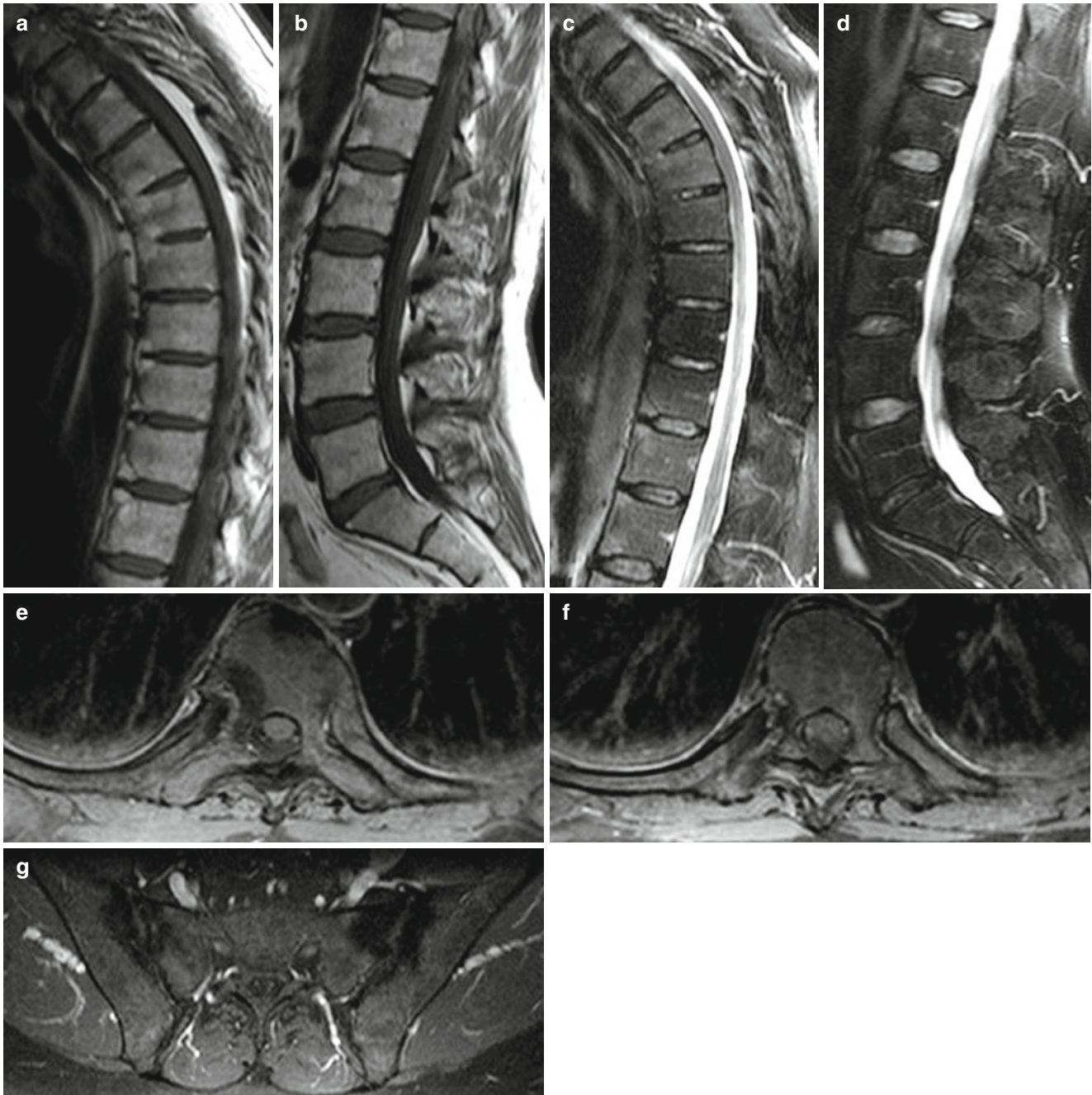


Fig. 5 Sagittal SE T1-weighted images (**a–b**), sagittal TSE T2-weighted images with fat saturation (**c–d**), axial SE T1-weighted images with fat saturation following the administration of contrast medium (**e–g**). These images show ankylosis of thoracic spine (**a**) and fat infiltration of the corners

(**a–b**), without bone marrow edema (**c–d**). After contrast medium administration, the images do not show enhancement of the spine and costovertebral joints, demonstrating the absence of acute inflammation (**e–g**)

Follow-up 3 years after suspension of TNF-blocker therapy

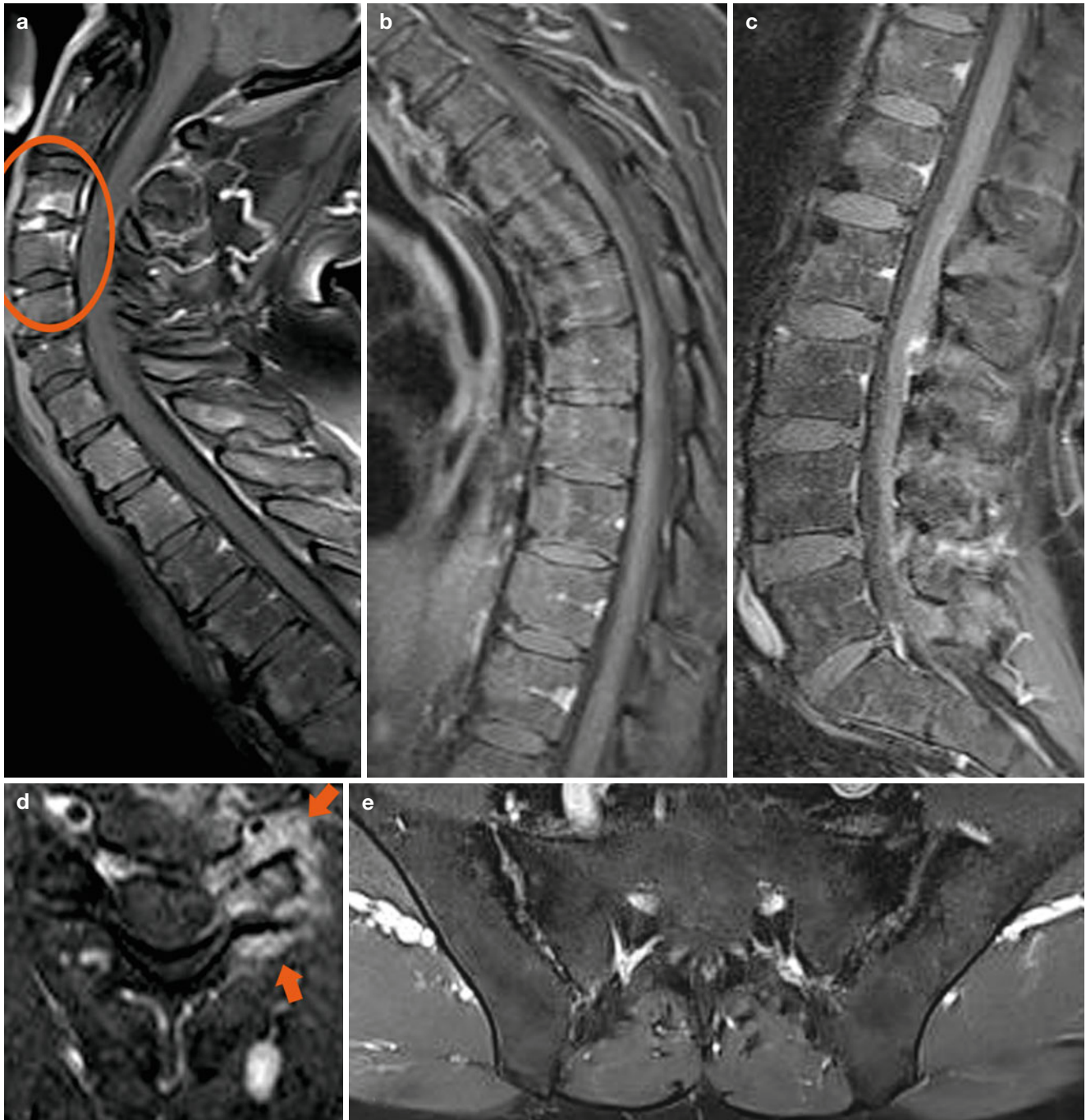


Fig. 6 Sagittal (a–c) and axial (d–e) SE T1-weighted images with fat saturation following the administration of contrast medium. These images show enhancement of the vertebral body endplate of C3–C4 and corresponding disc, indicating an aseptic spondylodiscitis (a, circle). Contrast enhancement of the left zygapophyseal joints C3–C4 and adjacent peri-

articular soft tissue indicating osteoarthritis and synovitis (d, arrows). The image of lumbar spine (c) shows inflammation of flava ligaments at L2–L3 and inflammation of interspinous ligament at L4–L5. The images of thoracic spine and sacroiliac joints (b, e) show the absence of inflammatory lesions